A reflection on lithium-ion battery cathode chemistry

Nature Communications

11, 1550

DOI: 10.1038/s41467-020-15355-0

Citation Report

#	Article	IF	Citations
1	Effect of Nitrogen Doping on the Performance of Mesoporous CMK-8 Carbon Anodes for Li-Ion Batteries. Energies, 2020, 13, 4998.	1.6	7
2	High-Energy, Single-Ion-Mediated Nonaqueous Zinc-TEMPO Redox Flow Battery. ACS Applied Materials & Interfaces, 2020, 12, 48654-48661.	4.0	13
3	Processing Strategies to Improve Cell-Level Energy Density of Metal Sulfide Electrolyte-Based All-Solid-State Li Metal Batteries and Beyond. ACS Energy Letters, 2020, 5, 3468-3489.	8.8	68
4	Fluorine-Doped LiNi0.8Mn0.1Co0.1O2 Cathode for High-Performance Lithium-Ion Batteries. Energies, 2020, 13, 4808.	1.6	28
5	Stress-resilient electrode materials for lithium-ion batteries: strategies and mechanisms. Chemical Communications, 2020, 56, 13301-13312.	2.2	13
6	Lithium Metal-Based Composite: An Emerging Material for Next-Generation Batteries. Matter, 2020, 3, 1009-1030.	5.0	35
7	Stability investigations of composite solid electrolytes based on Li7La3Zr2O12 in contact with LiCoO2. Solid State Ionics, 2020, 356, 115452.	1.3	4
8	Thermal runaway of Lithium-ion batteries employing LiN(SO2F)2-based concentrated electrolytes. Nature Communications, 2020, 11, 5100.	5.8	133
9	Towards more environmentally and socially responsible batteries. Energy and Environmental Science, 2020, 13, 4087-4097.	15.6	74
10	Industrialization of Layered Oxide Cathodes for Lithiumâ€Ion and Sodiumâ€Ion Batteries: A Comparative Perspective. Energy Technology, 2020, 8, 2000723.	1.8	36
11	A Review of the Design of Advanced Binders for Highâ€Performance Batteries. Advanced Energy Materials, 2020, 10, 2002508.	10.2	202
12	Complexation behaviour of LiCl and LiPF₆â€“ model studies in the solid-state and in solution using a bidentate picolyl-based ligand. Chemical Communications, 2020, 56, 13335-13338.	2.2	5
13	Solid state chemistry for developing better metal-ion batteries. Nature Communications, 2020, 11, 4976.	5.8	125
14	Controlling Residual Lithium in Highâ€Nickel (>90â€‰%) Lithium Layered Oxides for Cathodes in Lithiumâ€Ion Batteries. Angewandte Chemie, 2020, 132, 18821-18828.	1.6	2
15	Electrolytes and additives for batteries Part I: fundamentals and insights on cathode degradation mechanisms. ETransportation, 2020, 5, 100068.	6.8	26
16	Controlling Residual Lithium in Highâ€Nickel (>90â€‰%) Lithium Layered Oxides for Cathodes in Lithiumâ€Ion Batteries. Angewandte Chemie - International Edition, 2020, 59, 18662-18669.	7.2	81
17	Lithium Iron Aluminum Nickelate, LiNi_xFe_yAl_zO₂â€”New Sustainable Cathodes for Nextâ€Generation Cobaltâ€Free Liâ€Ion Batteries. Advanced Materials, 2020, 32, e2002960.	11.1	77
18	Dielectric Breakdown by Electric-field Induced Phase Separation. Journal of the Electrochemical Society, 2020, 167, 113504.	1.3	9

#	Article	IF	Citations
19	Enhanced cycle stability of LiCoO2 at high voltage by mixed conductive Li7.5La3Zr1.5Co0.5O12 coating. Ceramics International, 2020, 46, 25935-25941.	2.3	13
20	Fluorination effect for stabilizing cationic and anionic redox activities in cation-disordered cathode materials. Energy Storage Materials, 2020, 32, 234-243.	9.5	42
21	Tackling xEV Battery Chemistry in View of Raw Material Supply Shortfalls. Frontiers in Energy Research, 2020, 8, .	1.2	16
22	Understanding Reactivities of Ni-Rich Li[Ni_xMn_yCo_{1â€“xâ€“y}]O₂ Single-Crystal Cathode Materials. ACS Applied Energy Materials, 2020, 3, 12238-12245.	2.5	24
23	Through-Space Charge Modulation Overriding Substituent Effect: Rise of the Redox Potential at 3.35 V in a Lithium-Phenolate Stereoelectronic Isomer. Chemistry of Materials, 2020, 32, 9996-10006.	3.2	39
24	Dynamic Evolution of a Cathode Interphase Layer at the Surface of LiNi_{0.5}Co_{0.2}Mn_{0.3}O₂ in Quasi-Solid-State Lithium Batteries. Journal of the American Chemical Society, 2020, 142, 20752-20762.	6.6	58
25	Impact of Residual Lithium on the Adoption of High-Nickel Layered Oxide Cathodes for Lithium-Ion Batteries. Chemistry of Materials, 2020, 32, 9479-9489.	3.2	81
26	Construction of an Electron Bridge in Polyoxometalates/Graphene Oxide Ultrathin Nanosheets To Boost the Lithium Storage Performance. Energy & Fuels, 2020, 34, 16968-16977.	2.5	11
27	Synthesis of LiNiO₂ at Moderate Oxygen Pressure and Long-Term Cyclability in Lithium-Ion Full Cells. ACS Applied Materials & Interfaces, 2020, 12, 52826-52835.	4.0	51
28	Xanthogen Polysulfides as a New Class of Electrode Material for Rechargeable Batteries. Advanced Energy Materials, 2020, 10, 2001658.	10.2	36
29	High performance lithium-rich cathode modified with Al2O3 by melting impregnation method. Materials Letters, 2020, 279, 128479.	1.3	11
30	A redox-active organic cation for safer high energy density Li-ion batteries. Journal of Materials Chemistry A, 2020, 8, 17156-17162.	5.2	9
31	Structure and magnetic properties of LiMVO4 (M = Mn, Cu). Journal of Solid State Chemistry, 2020, 291, 121612.	1.4	4
32	Long-Life, Ultrahigh-Nickel Cathodes with Excellent Air Storage Stability for High-Energy Density Lithium-Based Batteries. Chemistry of Materials, 2020, 32, 7413-7424.	3.2	49
33	Designing Advanced Lithiumâ€Based Batteries for Lowâ€Temperature Conditions. Advanced Energy Materials, 2020, 10, 2001972.	10.2	225
34	Understanding fundamental effects of Cu impurity in different forms for recovered LiNi0.6Co0.2Mn0.2O2 cathode materials. Nano Energy, 2020, 78, 105214.	8.2	52
35	Predicting Morphological Evolution during Coprecipitation of MnCO₃ Battery Cathode Precursors Using Multiscale Simulations Aided by Targeted Synthesis. Chemistry of Materials, 2020, 32, 9126-9139.	3.2	15
36	Resolving the Phase Instability of a Fluorinated Ether, Carbonate-Based Electrolyte for the Safe Operation of an Anode-Free Lithium Metal Battery. ACS Applied Energy Materials, 2020, 3, 10722-10733.	2.5	26

#	Article	IF	Citations
37	A Pathway to Understand NMC Cathodes. Joule, 2020, 4, 1632-1633.	11.7	13
38	Energy and environmental aspects in recycling lithium-ion batteries: Concept of Battery Identity Global Passport. Materials Today, 2020, 41, 304-315.	8.3	181
39	Enabling Superior Electrochemical Performance of Lithium-Rich Li_{1.2}Ni_{0.2}Mn_{0.6}O₂ Cathode Materials by Surface Integration. Industrial & Engineering Chemistry Research, 2020, 59, 19312-19321.	1.8	15
40	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.	4.0	46
41	Synthesis Control of Layered Oxide Cathodes for Sodium-Ion Batteries: A Necessary Step Toward Practicality. Chemistry of Materials, 2020, 32, 8431-8441.	3.2	31
42	Thin-carbon-layer-enveloped cobaltâ€“iron oxide nanocages as a high-efficiency sulfur container for Liâ€“S batteries. Journal of Materials Chemistry A, 2020, 8, 20604-20611.	5.2	42
43	Uncovering phase transformation, morphological evolution, and nanoscale color heterogeneity in tungsten oxide electrochromic materials. Journal of Materials Chemistry A, 2020, 8, 20000-20010.	5.2	21
44	Kinetic and Thermodynamic Studies on Synthesis of Mg-Doped LiMn2O4 Nanoparticles. Nanomaterials, 2020, 10, 1409.	1.9	18
45	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.	3.2	152
46	Molybdenum Boride as an Efficient Catalyst for Polysulfide Redox to Enable Highâ€Energyâ€Density Lithiumâ€“Sulfur Batteries. Advanced Materials, 2020, 32, e2004741.	11.1	148
47	Recent Advances in Lithiumâ€“Carbon Dioxide Batteries. Small Structures, 2020, 1, 2000027.	6.9	57
48	Inverse Fabrication of Li₂Sâ€Nanocrystals@Dopedâ€Carbon Loaded on Woven Carbon Fibers to Spatial Structure Cathodes for Highâ€Stable Lithiumâ€“Sulfur Batteries. Small Methods, 2020, 4, 2000463.	4.6	14
49	A Progress Report on Metalâ€“Sulfur Batteries. Advanced Functional Materials, 2020, 30, 2004084.	7.8	78
50	Electrospun Lignin-Derived Carbon Micro- and Nanofibers: A Review on Precursors, Properties, and Applications. ACS Sustainable Chemistry and Engineering, 2020, 8, 13868-13893.	3.2	48
51	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.	3.2	25
52	Niobium Tungsten Oxide in a Green Water-in-Salt Electrolyte Enables Ultra-Stable Aqueous Lithium-Ion Capacitors. Nano-Micro Letters, 2020, 12, 168.	14.4	40
53	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.	6.6	35
54	Identifying the Origins of Microstructural Defects Such as Cracking within Niâ€Rich NMC811 Cathode Particles for Lithiumâ€Ion Batteries. Advanced Energy Materials, 2020, 10, 2002655.	10.2	119

#	Article	IF	Citations
55	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
56	A retrospective on lithium-ion batteries. Nature Communications, 2020, 11, 2499.	5.8	563
57	Systematic Study of Al Impurity for NCM622 Cathode Materials. ACS Sustainable Chemistry and Engineering, 2020, 8, 9875-9884.	3.2	53
58	A Metal Organic Framework Derived Solid Electrolyte for Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2020, 10, 2001285.	10.2	77
59	Opportunities and Reality of Aqueous Rechargeable Batteries. Advanced Energy Materials, 2020, 10, 2001386.	10.2	92
60	Should All Electrochemical Energy Materials Be Isomaterially Heterostructured to Optimize Contra and Co-varying Physicochemical Properties?. Frontiers in Chemistry, 2020, 8, 515.	1.8	4
61	Reining in dissolved transition-metal ions. Science, 2020, 369, 140-141.	6.0	134
62	Synthesis and electrochemical properties of Zn-doping LiNi1/3Co1/3Mn1/3O2 cathode material for lithium-ion battery application. Journal of Materials Science: Materials in Electronics, 2020, 31, 12409-12416.	1.1	7
63	Multivalent-Ion versus Proton Insertion into Battery Electrodes. ACS Energy Letters, 2020, 5, 2367-2375.	8.8	81
64	Direct surface coating of high voltage LiCoO₂ cathode with P(VDF-HFP) based gel polymer electrolyte. RSC Advances, 2020, 10, 24533-24541.	1.7	5
65	Highâ€Nickel NMA: A Cobaltâ€Free Alternative to NMC and NCA Cathodes for Lithiumâ€Ion Batteries. Advanced Materials, 2020, 32, e2002718.	11.1	205
66	Improving the rate performance of LiNi0.5Mn0.5O2 material at high voltages by Cu-doping. Ionics, 2020, 26, 4969-4976.	1.2	5
67	Chemomechanical Design Factors for High Performance in Manganese-Based Spinel Cathode Materials for Advanced Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 22789-22797.	4.0	15
68	Synthesis and sintering at low temperature of a new nanostructured beta-Eucryptite dense compact by spark plasma sintering. Ceramics International, 2020, 46, 18469-18477.	2.3	6
69	Anodeâ€Free Full Cells: A Pathway to Highâ€Energy Density Lithiumâ€Metal Batteries. Advanced Energy Materials, 2021, 11, 2000804.	10.2	232
70	The Layered Oxides in Lithium and Sodiumâ€Ion Batteries: A Solidâ€State Chemistry Approach. Advanced Energy Materials, 2021, 11, 2001201.	10.2	93
71	Finding the sweet spot: Li/Mn-rich cathode materials with fine-tuned coreâ€“shell particle design for high-energy lithium ion batteries. Electrochimica Acta, 2021, 366, 137413.	2.6	14
72	Towards high-energy-density lithium-ion batteries: Strategies for developing high-capacity lithium-rich cathode materials. Energy Storage Materials, 2021, 34, 716-734.	9.5	149

#	Article	IF	Citations
73	A novel approach for synthesis of expanded graphite and its enhanced lithium storage properties. Journal of Energy Chemistry, 2021, 59, 292-298.	7.1	17
74	Solidâ€State Liâ€“Metal Batteries: Challenges and Horizons of Oxide and Sulfide Solid Electrolytes and Their Interfaces. Advanced Energy Materials, 2021, 11, .	10.2	312
75	Implementing an in-situ carbon formation of MoO3 nanoparticles for high performance lithium-ion battery. Ceramics International, 2021, 47, 10261-10267.	2.3	27
76	New insights into the formation of siliconâ€“oxygen layer on lithium metal anode via in situ reaction with tetraethoxysilane. Journal of Energy Chemistry, 2021, 56, 14-22.	7.1	18
77	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.	9.5	120
78	Cobalt-free, high-nickel layered oxide cathodes for lithium-ion batteries: Progress, challenges, and perspectives. Energy Storage Materials, 2021, 34, 250-259.	9.5	145
79	Comparative life cycle assessment of high performance lithium-sulfur battery cathodes. Journal of Cleaner Production, 2021, 282, 124528.	4.6	26
80	A review of composite polymer-ceramic electrolytes for lithium batteries. Energy Storage Materials, 2021, 34, 282-300.	9.5	233
81	Methods for enhancing the capacity of electrode materials in low-temperature lithium-ion batteries. Chinese Chemical Letters, 2021, 32, 973-982.	4.8	55
82	Suppressing capacity fading and voltage decay of Ni-rich cathode material by dual-ion doping for lithium-ion batteries. Journal of Materials Science, 2021, 56, 2347-2359.	1.7	14
83	Triazole-enabled small TEMPO cathodes for lithium-organic batteries. Energy Storage Materials, 2021, 35, 122-129.	9.5	17
84	Boosting energy efficiency of Li-rich layered oxide cathodes by tuning oxygen redox kinetics and reversibility. Energy Storage Materials, 2021, 35, 388-399.	9.5	42
85	Electrochemical performances of P2-Na2/3Ni1/3Mn2/3O2 doped with Li and Mg for high cycle stability. Journal of Alloys and Compounds, 2021, 858, 157717.	2.8	15
86	Polysulfide reduction and Li2S phase formation in the presence of lithium metal and solid electrolyte interphase layer. Journal of Power Sources, 2021, 485, 229289.	4.0	9
87	Toward coupling of electrochemical redox properties with electrostatic potential surfaces tailored by dopant architectures for pyrenetetrone. Energy Storage Materials, 2021, 35, 610-619.	9.5	15
88	Silicon oxycarbide-carbon hybrid nanofibers: A promising anode for ultralong-cycle lithium ion batteries with high rate capability. Ceramics International, 2021, 47, 6867-6874.	2.3	9
89	Vanadate-based electrodes for rechargeable batteries. Materials Chemistry Frontiers, 2021, 5, 1585-1609.	3.2	12
90	Kinetic Limitations in Singleâ€Crystal Highâ€Nickel Cathodes. Angewandte Chemie - International Edition, 2021, 60, 17350-17355.	7.2	84

#	Article	IF	Citations
91	Construction of a surface heterosphere for a Li-rich manganese-based cathode with improved Li storage properties. Ceramics International, 2021, 47, 9551-9559.	2.3	8
92	Nitroxide radical polymers for emerging plastic energy storage and organic electronics: fundamentals, materials, and applications. Materials Horizons, 2021, 8, 803-829.	6.4	69
93	Recent Tactics and Advances in the Application of Metal Sulfides as Highâ€Performance Anode Materials for Rechargeable Sodiumâ€Ion Batteries. Advanced Functional Materials, 2021, 31, 2006761.	7.8	89
94	LiMnO2 cathode stabilized by interfacial orbital ordering for sustainable lithium-ion batteries. Nature Sustainability, 2021, 4, 392-401.	11.5	156
95	Perspective on the synergistic effect of chalcogenide multiphases in sodium-ion batteries. Materials Chemistry Frontiers, 2021, 5, 1694-1715.	3.2	22
96	Evoking High-Donor-Number-Assisted and Organosulfur-Mediated Conversion in Lithiumâ€“Sulfur Batteries. ACS Energy Letters, 2021, 6, 224-231.	8.8	51
97	Hollow Concave Zincâ€Doped Co₃O₄ Nanosheets/Carbon Composites as Ultrahigh Capacity Anode Materials for Lithiumâ€Ion Batteries. ChemElectroChem, 2021, 8, 172-178.	1.7	9
98	The potential application of VS2 as an electrode material for Mg ion battery: A DFT study. Applied Surface Science, 2021, 544, 148775.	3.1	50
99	Structural relaxation in layered, non-stoichiometric Fe₇S₈. Physical Chemistry Chemical Physics, 2021, 23, 1165-1171.	1.3	2
100	Allâ€Solidâ€State Sodium Batteries with a Polyethylene Glycol Diacrylateâ€“Na₃Zr₂Si₂PO₁₂ Composite Electrolyte. Advanced Energy and Sustainability Research, 2021, 2, 2000061.	2.8	19
101	Kinetic Limitations in Singleâ€Crystal Highâ€Nickel Cathodes. Angewandte Chemie, 2021, 133, 17490-17495.	1.6	2
102	Advanced Carbon Materials for Sodiumâ€Ion Capacitors. Batteries and Supercaps, 2021, 4, 538-553.	2.4	27
103	Predicting Charge Transfer Stability between Sulfide Solid Electrolytes and Li Metal Anodes. ACS Energy Letters, 2021, 6, 150-157.	8.8	24
104	Toward sustainable batteries. Nature Sustainability, 2021, 4, 379-380.	11.5	27
105	Rational design on materials for developing next generation lithium-ion secondary battery. Progress in Solid State Chemistry, 2021, 62, 100298.	3.9	80
106	Exploiting the Degradation Mechanism of NCM523Graphite Lithiumâ€Ion Full Cells Operated at High Voltage. ChemSusChem, 2021, 14, 595-613.	3.6	56
107	Carbon coating of electrode materials for lithium-ion batteries. Surface Innovations, 2021, 9, 92-110.	1.4	35
108	Improvement of alkali metal ion batteries via interlayer engineering of anodes: from graphite to graphene. Nanoscale, 2021, 13, 12521-12533.	2.8	14

#	Article	IF	Citations
109	Understanding the Outstanding Highâ€Voltage Performance of NCM523||Graphite Lithium Ion Cells after Elimination of Ethylene Carbonate Solvent from Conventional Electrolyte. Advanced Energy Materials, 2021, 11, 2003738.	10.2	86
110	Effects of aluminum substitution in nickel-rich layered LiNi_xAl_{1â^'x}O₂ (x = 0.92, 0.95) positive electrode materials for Li-ion batteries on high-rate cycle performance. Journal of Materials Chemistry A, 2021, 9, 21981-21994.	5.2	13
111	A Bifunctional Hybrid Electrocatalyst for Oxygen Reduction and Oxygen Evolution Reactions: Nano-Co3O4-Deposited La0.5Sr0.5MnO3 via Infiltration. Molecules, 2021, 26, 277.	1.7	5
112	Metal Oxide Composite Cathode Material for High Energy Density Batteries. , 2021, , 509-530.		1
113	A vanadium-based oxide-phosphate-pyrophosphate framework as a 4 V electrode material for K-ion batteries. Chemical Science, 2021, 12, 12383-12390.	3.7	10
114	Recent developments in natural mineral-based separators for lithium-ion batteries. RSC Advances, 2021, 11, 16633-16644.	1.7	15
115	A review on infiltration techniques for energy conversion and storage devices: from fundamentals to applications. Sustainable Energy and Fuels, 2021, 5, 5024-5037.	2.5	18
116	Identical cut-off voltage versus equivalent capacity: an objective evaluation of the impact of dopants in layered oxide cathodes. Journal of Materials Chemistry A, 2021, 9, 11219-11227.	5.2	12
117	Temperature-dependent crystallization of Cu₂O rhombic dodecahedra. CrystEngComm, 2021, 23, 7970-7977.	1.3	6
118	Lithium ion battery degradation: what you need to know. Physical Chemistry Chemical Physics, 2021, 23, 8200-8221.	1.3	330
119	Synthesis, Modification, and Lithiumâ€Storage Properties of Spinel LiNi_{0.5}Mn_{1.5}O₄. ChemElectroChem, 2021, 8, 608-624.	1.7	31
120	Direct observation of the in-plane crack formation of O3-Na_{0.8}Mg_{0.2}Fe_{0.4}Mn_{0.4}O₂ due to oxygen gas evolution for Na-ion batteries. Journal of Materials Chemistry A, 2021, 9, 14074-14084.	5.2	16
121	Oxide-based Cathode Materials for Li- and Na-ion Batteries. New Developments in NMR, 2021, , 159-210.	0.1	0
122	Controllable preparation of one-dimensional Li_{1.2}Mn_{0.54}Ni_{0.13}Co_{0.13}O₂ cathode materials for high-performance lithium-ion batteries. RSC Advances, 2021, 11, 4864-4872.	1.7	2
123	Local Interactions Governing the Performances of Lithium- and Manganese-Rich Cathodes. Journal of Physical Chemistry Letters, 2021, 12, 1195-1201.	2.1	5
124	Thionated benzo[c]thiophen-1(3H)-one as an organic cathode with high capacity for sulfur-rich all organic lithium-ion batteries. Journal of Materials Chemistry A, 2021, 9, 14444-14450.	5.2	12
125	Controllable fabrication of Li-rich layered oxide Li1.2Mn0.54Ni0.13Co0.13O2 microspheres for enhanced electrochemical performance. CrystEngComm, 2021, 23, 4975-4984.	1.3	1
126	Delineating the Lithiumâ€“Electrolyte Interfacial Chemistry and the Dynamics of Lithium Deposition in Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2021, 11, 2003293.	10.2	39

#	Article	IF	Citations
127	Doping regulation in transition metal compounds for electrocatalysis. Chemical Society Reviews, 2021, 50, 9817-9844.	18.7	245
128	Advances in the Applications of Graphene-Based Nanocomposites in Clean Energy Materials. Crystals, 2021, 11, 47.	1.0	18
129	Designing positive electrodes with high energy density for lithium-ion batteries. Journal of Materials Chemistry A, 2021, 9, 7407-7421.	5.2	34
130	Vanadium oxide bronzes as cathode active materials for non-lithium-based batteries. CrystEngComm, 2021, 23, 5267-5283.	1.3	6
131	Lithium-Ion Batteries: Latest Advances and Prospects. Batteries, 2021, 7, 8.	2.1	20
132	Microwave-assisted Synthesis and Co, Al Co-modification of Ni-rich LiNi_{0.8}Mn_{0.2}O₂ Materials for Li-ion Battery Electrode. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2021, 36, 718.	0.6	8
133	An amorphous hierarchical MnO₂/acetylene black composite with boosted rate performance as an anode for lithium-ion batteries. Dalton Transactions, 2021, 50, 10749-10757.	1.6	7
134	An electrochemical study on LiMn₂O₄ for Al³⁺ ion storage in aqueous electrolytes. Physical Chemistry Chemical Physics, 2021, 23, 19150-19154.	1.3	4
135	On the Beneficial Impact of Li₂CO₃ as Electrolyte Additive in NCM523 âˆ¥ Graphite Lithium Ion Cells Under Highâ€Voltage Conditions. Advanced Energy Materials, 2021, 11, 2003756.	10.2	59
136	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.	5.2	28
137	TEM Characterization of Battery Materials. , 2021, , .		1
138	The rise and rise of lithium. Nature Chemistry, 2021, 13, 107-109.	6.6	25
139	3,3â€Diethylene Diâ€Sulfite (DES) as a Highâ€Voltage Electrolyte Additive for 4.5â€…V LiNi_{0.8}Co_{0.1}Mn_{0.1}O₂/Graphite Batteries with Enhanced Performances. ChemElectroChem, 2021, 8, 745-754.	1.7	14
140	Reducing Time to Discovery: Materials and Molecular Modeling, Imaging, Informatics, and Integration. ACS Nano, 2021, 15, 3971-3995.	7.3	36
141	Advances and Prospects of Highâ€Voltage Spinel Cathodes for Lithiumâ€Based Batteries. Small Methods, 2021, 5, e2001196.	4.6	63
142	Pomegranate-like Ti-doped LiNi0.4Mn1.6O4 5ÂV-class cathode with superior high-voltage cycle and rate performance for Li-ion batteries. Chemical Engineering Science, 2021, 231, 116297.	1.9	16
143	Crossover Effects in Batteries with Highâ€Nickel Cathodes and Lithiumâ€Metal Anodes. Advanced Functional Materials, 2021, 31, 2010267.	7.8	65
144	Unraveling the Intricacies of Residual Lithium in High-Ni Cathodes for Lithium-Ion Batteries. ACS Energy Letters, 2021, 6, 941-948.	8.8	86

#	Article	IF	Citations
145	Outstanding Graphene Quantum Dots from Carbon Source for Biomedical and Corrosion Inhibition Applications: A Review. Sustainability, 2021, 13, 2127.	1.6	63
146	Na/Al Codoped Layered Cathode with Defects as Bifunctional Electrocatalyst for Highâ€Performance Liâ€Ion Battery and Oxygen Evolution Reaction. Small, 2021, 17, e2005605.	5.2	31
147	An Overview of Cation-Disordered Lithium-Excess Rocksalt Cathodes. ACS Energy Letters, 0, , 1358-1376.	8.8	50
148	Tailoring 3D Carbon Foam using CNTs and MnO₂ to Fabricate Stable Lithium/Dissolved Lithium Polysulfide Batteries. Langmuir, 2021, 37, 4016-4024.	1.6	8
149	Application of a Polyacrylate Latex to a Lithium Iron Phosphate Cathode as a Binder Material. Energies, 2021, 14, 1902.	1.6	9
150	Improved battery performance of Fe-doped LiVPO4F with high capacity and stable cycling. Materials Letters, 2021, 286, 129225.	1.3	7
151	Utilizing Oxygen Redox in Layered Cathode Materials from Multiscale Perspective. Advanced Energy Materials, 2021, 11, 2003227.	10.2	39
152	Upgrading Electrode/Electrolyte Interphases via Polyamide-Based Quasi-Solid Electrolyte for Long-Life Nickel-Rich Lithium Metal Batteries. ACS Energy Letters, 0, , 1280-1289.	8.8	49
153	Stability of Calcium Ion Battery Electrolytes: Predictions from Ab Initio Molecular Dynamics Simulations. ACS Applied Materials & Interfaces, 2021, 13, 13114-13122.	4.0	29
154	Dataâ€Driven Safety Risk Prediction of Lithiumâ€Ion Battery. Advanced Energy Materials, 2021, 11, 2003868.	10.2	55
155	Recent Progress and Prospects of Layered Cathode Materials for Potassiumâ€Ion Batteries. Energy and Environmental Materials, 2021, 4, 178-200.	7.3	43
156	Atomic Layer Deposition of a Nanometer-Thick Li₃PO₄ Protective Layer on LiNi_{0.5}Mn_{1.5}O₄ Films: Dream or Reality for Long-Term Cycling?. ACS Applied Materials & Interfaces, 2021, 13, 15761-15773.	4.0	23
157	Equilibrium and Dynamical Characteristics of the Solvation Associated with the Li+/Li Redox Couple at the Ethylene Carbonate/Graphene Interface. Journal of Physical Chemistry C, 2021, 125, 6694-6707.	1.5	2
158	Sustainable Battery Materials for Nextâ€Generation Electrical Energy Storage. Advanced Energy and Sustainability Research, 2021, 2, 2000102.	2.8	52
159	Nanoporous Gold for Energy Applications. Chemical Record, 2021, 21, 1199-1215.	2.9	13
160	A robust carbon coating of Na3V2(PO4)3 cathode material for high performance sodium-ion batteries. Chinese Chemical Letters, 2021, 32, 3570-3574.	4.8	48
161	Zinc-Doped High-Nickel, Low-Cobalt Layered Oxide Cathodes for High-Energy-Density Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 15324-15332.	4.0	84
162	Deep Eutectic Solvents for Boosting Electrochemical Energy Storage and Conversion: A Review and Perspective. Advanced Functional Materials, 2021, 31, 2011102.	7.8	172

#	Article	IF	Citations
163	The rise of electric vehiclesâ€"2020 status and future expectations. Progress in Energy, 2021, 3, 022002.	4.6	132
164	Metalâ€"Organic Frameworks and Their Derivatives as Cathodes for Lithium-Ion Battery Applications: A Review. Electrochemical Energy Reviews, 2022, 5, 312-347.	13.1	75
165	Water-in-Salt LiTFSI Aqueous Electrolytes. 1. Liquid Structure from Combined Molecular Dynamics Simulation and Experimental Studies. Journal of Physical Chemistry B, 2021, 125, 4501-4513.	1.2	52
166	Molecular Regulation on Carbonyl-Based Organic Cathodes: Toward High-Rate and Long-Lifespan Potassiumâ€"Organic Batteries. ACS Applied Materials & Interfaces, 2021, 13, 16396-16406.	4.0	26
167	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.	7.3	75
168	Designed high-performance lithium-ion battery electrodes using a novel hybrid model-data driven approach. Energy Storage Materials, 2021, 36, 435-458.	9.5	55
169	Charge Compensation Mechanism and Structural Change of Li-Rich Layered Oxide Li_{1.23}Mn_{0.46}Fe_{0.15}Ni_{0.15}O₂ Electrode during Charging and Discharging. Journal of the Electrochemical Society, 2021, 168, 040518.	1.3	3
170	Demystifying the Lattice Oxygen Redox in Layered Oxide Cathode Materials of Lithium-Ion Batteries. ACS Nano, 2021, 15, 6061-6104.	7.3	77
171	Towards practical organic batteries. Nature Materials, 2021, 20, 581-583.	13.3	7
172	Additiveâ€Free Selfâ€Presodiation Strategy for Highâ€Performance Naâ€Ion Batteries. Advanced Functional Materials, 2021, 31, 2101475.	7.8	36
173	Boron-Decorated Pillared Graphene as the Basic Element for Supercapacitors: An Ab Initio Study. Applied Sciences (Switzerland), 2021, 11, 3496.	1.3	5
174	Stabilizing ultrahigh-nickel layered oxide cathodes for high-voltage lithium metal batteries. Materials Today, 2021, 44, 15-24.	8.3	53
175	Enhanced Electrochemical Performances of Hollow-Structured N-Doped Carbon Derived from a Zeolitic Imidazole Framework (ZIF-8) Coated by Polydopamine as an Anode for Lithium-Ion Batteries. Energies, 2021, 14, 2436.	1.6	3
176	Unveiling the Influence of Carbon Impurity on Recovered NCM622 Cathode Material. ACS Sustainable Chemistry and Engineering, 2021, 9, 6087-6096.	3.2	14
177	Tailoring Lithium Polysulfide Coordination and Clustering Behavior through Cationic Electrostatic Competition. Chemistry of Materials, 2021, 33, 3457-3466.	3.2	31
178	Through the Maze of Multivalentâ€Ion Batteries: A Critical Review on the Status of the Research on Cathode Materials for Mg²⁺ and Ca²⁺ Ions Insertion. Batteries and Supercaps, 2021, 4, 1221-1251.	2.4	24
179	Designing inorganic electrolytes for solid-state Li-ion batteries: A perspective of LGPS and garnet. Materials Today, 2021, 50, 418-441.	8.3	59
180	Crystal Alignment Technology of Electrode Material for Enhancing Electrochemical Performance in Lithium Ion Battery. Journal of the Electrochemical Society, 2021, 168, 040502.	1.3	11

#	Article	IF	Citations
181	Investigation of structural and electrochemical properties of Na2Mn2(SO4)3 cathode for sodium-ion batteries. Journal of Materials Science: Materials in Electronics, 2021, 32, 14509.	1.1	0
182	Reviving the lithium-manganese-based layered oxide cathodes for lithium-ion batteries. Matter, 2021, 4, 1511-1527.	5.0	107
183	A perspective on single-crystal layered oxide cathodes for lithium-ion batteries. Energy Storage Materials, 2021, 37, 143-160.	9.5	210
184	The role of tungsten-related elements for improving the electrochemical performances of cathode materials in lithium ion batteries. Tungsten, 2021, 3, 245-259.	2.0	35
185	Molybdenum-doped lithium vanadium phosphate (Li3MoxV2â^'x(PO4)3/C) as cathode material in lithium ion batteries. Journal of Materials Science: Materials in Electronics, 2021, 32, 16669-16681.	1.1	1
186	Multidimensional Nonstoichiometric Electrode Materials for Electrochemical Energy Conversion and Storage. Advanced Energy Materials, 2022, 12, 2100640.	10.2	25
187	Degradation Behavior, Biocompatibility, Electrochemical Performance, and Circularity Potential of Transient Batteries. Advanced Science, 2021, 8, 2004814.	5.6	44
188	The critical role of inorganic nanofillers in solid polymer composite electrolyte for Li⁺ transportation. , 2021, 3, 482-508.		68
189	Enabling the thermal stability of solid electrolyte interphase in Liâ€ion battery. InformaÄnÃ-MateriÃ¡ly, 2021, 3, 648-661.	8.5	70
190	Revisiting polyanionic LiFePO₄ battery material for electric vehicles. Functional Materials Letters, 2021, 14, 2130006.	0.7	10
191	Application of Electrospun Nanofibers for Fabrication of Versatile and Highly Efficient Electrochemical Devices: A Review. Polymers, 2021, 13, 1741.	2.0	29
192	Origin of Structural Phase Transitions in Ni-Rich Li_xNi_{0.8}Co_{0.1}Mn_{0.1}O₂ with Lithiation/Delithiation: A First-Principles Study. ACS Sustainable Chemistry and Engineering, 2021, 9, 7437-7446.	3.2	18
193	Aluminum and lithium sulfur batteries: a review of recent progress and future directions. Journal of Physics Condensed Matter, 2021, 33, 253002.	0.7	7
194	Layered oxides with solid-solution reaction for high voltage potassium-ion batteries cathode. Chemical Engineering Journal, 2021, 412, 128735.	6.6	30
195	Ionic Liquid (IL) Laden Metalâ€"Organic Framework (IL-MOF) Electrolyte for Quasi-Solid-State Sodium Batteries. ACS Applied Materials & Interfaces, 2021, 13, 24662-24669.	4.0	42
196	Manganeseâ€Based Materials for Rechargeable Batteries beyond Lithiumâ€ion. Advanced Energy Materials, 2021, 11, 2100867.	10.2	95
197	Straightforward strategy toward a shape-deformable carbon-free cathode for flexible Liâ€"air batteries in ambient air. Nano Energy, 2021, 83, 105821.	8.2	12
198	Towards Superior Electrochemical Property of Nickel-High Cathode Materials with a Multi-Functional Modification Strategy. Journal of the Electrochemical Society, 2021, 168, 050518.	1.3	0

#	Article	IF	Citations
199	Sustainability of Battery Technologies: Today and Tomorrow. ACS Sustainable Chemistry and Engineering, 2021, 9, 6507-6509.	3.2	16
200	Energetic Stability and Its Role in the Mechanism of Ionic Transport in NASICON-Type Solid-State Electrolyte Li_{1+x}Al_xTi_{2â€“x}(PO₄)₃. Journal of Physical Chemistry Letters, 2021, 12, 4400-4406.	2.1	8
201	The Latest Trends in Electric Vehicles Batteries. Molecules, 2021, 26, 3188.	1.7	39
202	Macaroniâ€Like Blueâ€Gray Nb₂O₅ Nanotubes for Highâ€Reversible Lithiumâ€Ion Storage. Advanced Energy and Sustainability Research, 2021, 2, 2100028.	2.8	6
203	Ab initio random structure searching for battery cathode materials. Journal of Chemical Physics, 2021, 154, 174111.	1.2	19
204	Environmental Impact Analysis of Aprotic Liâ€“O₂ Batteries Based on Life Cycle Assessment. ACS Sustainable Chemistry and Engineering, 2021, 9, 7139-7153.	3.2	27
205	Optical lithium sensors. Coordination Chemistry Reviews, 2021, 435, 213801.	9.5	17
206	Biphasic Electrolyte Inhibiting the Shuttle Effect of Redox Molecules in Lithiumâ€Metal Batteries. Angewandte Chemie, 2021, 133, 16496-16501.	1.6	1
207	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.	4.0	23
208	Transition Metal Dissolution and Degradation in NMC811-Graphite Electrochemical Cells. Journal of the Electrochemical Society, 2021, 168, 060518.	1.3	42
209	Holey Grapheneâ€“Enabled Solvent-Free Preparation of Ultrahigh Mass Loading Selenium Cathodes for High Areal Capacity Lithiumâ€“Selenium Batteries. Frontiers in Energy Research, 2021, 9, .	1.2	3
210	Covalent Organic Frameworks for Batteries. Advanced Functional Materials, 2021, 31, 2100505.	7.8	154
211	The Necessity of Recycling of Waste Li-Ion Batteries Used in Electric Vehicles as Objects Posing a Threat to Human Health and the Environment. Recycling, 2021, 6, 35.	2.3	16
212	The Role of Pilot Lines in Bridging the Gap Between Fundamental Research and Industrial Production for Lithiumâ€Ion Battery Cells Relevant to Sustainable Electromobility: A Review. Energy Technology, 2021, 9, 2100132.	1.8	25
213	A review on the stability and surface modification of layered transition-metal oxide cathodes. Materials Today, 2021, 46, 155-182.	8.3	132
214	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.	10.2	79
215	Rationally Designed PEGDAâ€“LLZTO Composite Electrolyte for Solid-State Lithium Batteries. ACS Applied Materials & Interfaces, 2021, 13, 30703-30711.	4.0	51
216	Phosphate Polyanion Materials as High-Voltage Lithium-Ion Battery Cathode: A Review. Energy & Fuels, 2021, 35, 10428-10450.	2.5	80

#	Article	IF	Citations
217	Synthesis of Ni-rich NMC cathode material by redox-assisted deposition method for lithium ion batteries. Electrochimica Acta, 2021, 381, 138244.	2.6	5
218	Siliconâ€Based Lithium Ion Battery Systems: Stateâ€ofâ€theâ€Art from Half and Full Cell Viewpoint. Advanced Functional Materials, 2021, 31, 2102546.	7.8	83
219	LiFePO4/Carbon Nanomaterial Composites for Cathodes of High-Power Lithium Ion Batteries. Inorganic Materials, 2021, 57, 620-628.	0.2	8
220	The journey of an electrifying (r)evolution. Nature Communications, 2021, 12, 4153.	5.8	2
221	Hydrothermal synthesis of olivine phosphates in the presence of excess phosphorus: a case study of LiMn0.8Fe0.19Mg0.01PO4. Ionics, 2021, 27, 3259-3269.	1.2	1
222	Biphasic Electrolyte Inhibiting the Shuttle Effect of Redox Molecules in Lithiumâ€Metal Batteries. Angewandte Chemie - International Edition, 2021, 60, 16360-16365.	7.2	12
223	High-performance Si/nano-Cu/CNTs/C anode derived from photovoltaic silicon waste: A potential photovoltaic-energy storage strategy. Materials Today Energy, 2021, 20, 100671.	2.5	17
224	Evidence for Li⁺/H⁺ Exchange during Ambient Storage of Ni-Rich Cathode Active Materials. Journal of the Electrochemical Society, 2021, 168, 070507.	1.3	31
225	Toward functional units constructing Mn-based oxide cathodes for rechargeable batteries. Science Bulletin, 2021, 66, 1260-1262.	4.3	4
226	Electrochemical Oxidative Fluorination of an Oxide Perovskite. Chemistry of Materials, 2021, 33, 5757-5768.	3.2	11
227	Tunable Porous Electrode Architectures for Enhanced Li-Ion Storage Kinetics in Thick Electrodes. Nano Letters, 2021, 21, 5896-5904.	4.5	66
228	Overlapped T-Nb₂O₅/Graphene Hybrid for a Quasi-Solid-State Asymmetric Supercapacitor with a High Rate Capacity. Energy & Fuels, 2021, 35, 12546-12555.	2.5	4
229	Surface Modification of Nanocrystalline LiMn2O4 Using Graphene Oxide Flakes. Materials, 2021, 14, 4134.	1.3	12
230	Green molten salt modification of cobalt oxide for lithium ion battery anode application. Materials Chemistry and Physics, 2021, 267, 124585.	2.0	9
231	Improved lithium storage performance of (Ni0.1Co0.7Mn0.2)3O4@Void@N-doped carbon via the synergistic effect between void space structure and N-doped carbon layer. Journal of Materials Science: Materials in Electronics, 2021, 32, 19552-19567.	1.1	1
232	Online Monitoring of Transition-Metal Dissolution from a High-Ni-Content Cathode Material. ACS Applied Materials & Interfaces, 2021, 13, 33075-33082.	4.0	43
233	Applications of Compositional Analysis with EDS on Battery Materials. Microscopy and Microanalysis, 2021, 27, 3440-3441.	0.2	0
234	Textileâ€Type Lithiumâ€Ion Battery Cathode Enabling High Specific/Areal Capacities and High Rate Capability through Ligand Replacement Reactionâ€Mediated Assembly. Advanced Energy Materials, 2021, 11, 2101631.	10.2	19

#	Article	IF	Citations
235	Point defects-induced adsorption and diffusion of lithium on monolayer titanium disulfide: A first-principles study. Applied Surface Science, 2021, 553, 149448.	3.1	11
236	Compensation of the Irreversible Loss of Si-Anodes via Prelithiated NMC/LMO Blend Cathode. Journal of the Electrochemical Society, 2021, 168, 070550.	1.3	1
237	Unveiling the Stabilities of Nickelâ€Based Layered Oxide Cathodes at an Identical Degree of Delithiation in Lithiumâ€Based Batteries. Advanced Materials, 2021, 33, e2100804.	11.1	62
238	Computational investigation of 2D 3d/4d hexagonal transition metal borides for metal-ion batteries. Electrochimica Acta, 2021, 384, 138404.	2.6	16
239	Highâ€Performance Cathode Materials for Potassiumâ€Ion Batteries: Structural Design and Electrochemical Properties. Advanced Materials, 2021, 33, e2100409.	11.1	48
240	Organic Negative Electrode Materials for Metalâ€Ion and Molecularâ€Ion Batteries: Progress and Challenges from a Molecular Engineering Perspective. Advanced Energy Materials, 2021, 11, 2101562.	10.2	44
241	Energy Autonomous Sweatâ€Based Wearable Systems. Advanced Materials, 2021, 33, e2100899.	11.1	85
242	Synthesis and Processing by Design of Highâ€Nickel Cathode Materials. Batteries and Supercaps, 2022, 5, .	2.4	11
243	Molybdenum oxide nanoporous asymmetric membranes for high-capacity lithium ion battery anode. Journal of Materials Research, 2022, 37, 2204-2215.	1.2	3
244	Wrinkled, partially-graphitized carbon encapsulated silicon with preformed voids as lithium-ion battery anode with enhanced cyclic and rate performances. Composites Communications, 2021, 26, 100782.	3.3	3
245	Multifunctional polymer bottlebrush-based gel polymer electrolytes for lithium metal batteries. Materials Today Nano, 2021, 15, 100128.	2.3	8
246	Advanced Current Collectors with Carbon Nanofoams for Electrochemically Stable Lithiumâ€"Sulfur Cells. Nanomaterials, 2021, 11, 2083.	1.9	10
247	Lithium-based polyanion oxide cathodes. Nature Energy, 2021, 6, 844-845.	19.8	25
248	High-Specific-Capacity and High-Performing Post-Lithium-Ion Battery Anode over 2D Black Arsenic Phosphorus. ACS Applied Energy Materials, 2021, 4, 7900-7910.	2.5	19
249	Ironâ€Based Layered Cathodes for Sodiumâ€Ion Batteries. Batteries and Supercaps, 2021, 4, 1657-1679.	2.4	19
250	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.	10.2	58
251	Machine-Learning Approach for Predicting the Discharging Capacities of Doped Lithium Nickelâ€"Cobaltâ€"Manganese Cathode Materials in Li-Ion Batteries. ACS Central Science, 2021, 7, 1551-1560.	5.3	27
252	Automated mineralogy as a novel approach for the compositional and textural characterization of spent lithium-ion batteries. Minerals Engineering, 2021, 169, 106924.	1.8	34

#	Article	IF	Citations
253	Energy consumption and battery aging minimization using a Q-learning strategy for a battery/ultracapacitor electric vehicle. Energy, 2021, 229, 120705.	4.5	42
254	A New Germanium-Based Anode Material with High Stability for Lithium-Ion Batteries. ACS Sustainable Chemistry and Engineering, 2021, 9, 11883-11890.	3.2	12
255	Recent Advances and Need of Green Synthesis in Two-Dimensional Materials for Energy Conversion and Storage Applications. Current Nanoscience, 2021, 17, 554-571.	0.7	8
256	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.	4.0	37
257	N/S co-doped carbon nanosheet bundles as high-capacity anode for potassium-ion battery. Nano Research, 2022, 15, 2040-2046.	5.8	30
258	Engineering the Si Anode Interface via Particle Surface Modification: Embedded Organic Carbonates Lead to Enhanced Performance. ACS Applied Energy Materials, 2021, 4, 8193-8200.	2.5	11
259	Enhanced Conductivity Boosts the Cathodic Performance of Aluminium-Doped SrTiO₃ in Rechargeable Alkaline Zinc Battery. Journal of the Electrochemical Society, 2021, 168, 080530.	1.3	4
260	Influence of Stacking on H⁺ Intercalation in Layered ACoO₂ (A =) Tj ETQq1 1 0.784314 rgBT Investigation. Chemistry of Materials, 2021, 33, 6942-6954.	3.2	15
261	Direct Recycling of Blended Cathode Materials by Froth Flotation. Energy Technology, 2021, 9, 2100468.	1.8	26
262	Computational discovery of energy materials in the era of big data and machine learning: A critical review. Materials Reports Energy, 2021, 1, 100047.	1.7	24
263	Electrospun carbon nanofibers for lithium metal anodes: Progress and perspectives. Chinese Chemical Letters, 2022, 33, 141-152.	4.8	44
264	Regulating the Interlayer Spacing of Vanadium Oxide by In Situ Polyaniline Intercalation Enables an Improved Aqueous Zinc-Ion Storage Performance. ACS Applied Materials & Interfaces, 2021, 13, 39347-39354.	4.0	35
265	Boron and Phosphorus Dual-Doped Carbon Coating Improves Electrochemical Performances of LiFe_{0.8}Mn_{0.2}PO₄ Cathode Materials. ACS Applied Energy Materials, 2021, 4, 8003-8015.	2.5	14
266	Beyond Thin Films: Clarifying the Impact of c-Li₁₅Si₄ Formation in Thin Film, Nanoparticle, and Porous Si Electrodes. ACS Applied Materials & Interfaces, 2021, 13, 38147-38160.	4.0	4
267	Metalâ€“Organic Framework Derived Ultrafine Sb@Porous Carbon Octahedron via In Situ Substitution for High-Performance Sodium-Ion Batteries. ACS Nano, 2021, 15, 15104-15113.	7.3	79
268	Ultrathin ammonium vanadate nanoflakes on carbon fiber â€“ A binder-free high-rate capability cathode for aqueous medium zinc ion storage. Journal of Alloys and Compounds, 2021, 876, 160130.	2.8	14
269	Characterizing Batteries by In Situ Electrochemical Atomic Force Microscopy: A Critical Review. Advanced Energy Materials, 2021, 11, 2101518.	10.2	40
270	Hard Carbon Anodes for Nextâ€Generation Liâ€Ion Batteries: Review and Perspective. Advanced Energy Materials, 2021, 11, 2101650.	10.2	213

#	Article	IF	Citations
271	Accessing a highâ€voltage nonaqueous hybrid flow battery with a sodiumâ€methylphenothiazine chemistry and a sodiumâ€ion solid electrolyte. Energy Storage, 2022, 4, e281.	2.3	4
272	Photocatalysis and Li-Ion Battery Applications of {001} Faceted Anatase TiO2-Based Composites. J, 2021, 4, 500-530.	0.6	1
273	Formation of a Stable Solid-Electrolyte Interphase at Metallic Lithium Anodes Induced by LiNbO₃ Protective Layers. ACS Applied Energy Materials, 2021, 4, 10333-10343.	2.5	11
274	Generating lithium fluoride-abundant interphase on layered lithium-rich oxide cathode with lithium 1,1,2,2,3,3-hexafluoropropane-1,3-disulfonimide. Journal of Power Sources, 2021, 507, 230278.	4.0	11
275	Conducting network interface modulated rate performance in LiFePO4/C cathode materials. Rare Metals, 2022, 41, 951-959.	3.6	12
276	Preparation of cathode slurry for lithium-ion battery by three-roll mill process. Carbon Letters, 2022, 32, 265-272.	3.3	8
277	Water or Anion? Uncovering the Zn²⁺ Solvation Environment in Mixed Zn(TFSI)₂ and LiTFSI Water-in-Salt Electrolytes. ACS Energy Letters, 2021, 6, 3458-3463.	8.8	45
278	Origins of Lithium/Sodium Reverse Permeability Selectivity in 12-Crown-4-Functionalized Polymer Membranes. ACS Macro Letters, 2021, 10, 1167-1173.	2.3	13
279	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.	2.5	3
280	Effect of TiO_x Surface Modification on the Electrochemical Performances of Ni-Rich (NMC-622) Cathode Material for Lithium-Ion Batteries. ACS Applied Energy Materials, 2021, 4, 10493-10504.	2.5	9
281	Fundamental understanding and practical challenges of lithium-rich oxide cathode materials: Layered and disordered-rocksalt structure. Energy Storage Materials, 2021, 40, 51-71.	9.5	61
282	Progresses in Sustainable Recycling Technology of Spent Lithiumâ€Ion Batteries. Energy and Environmental Materials, 2022, 5, 1012-1036.	7.3	131
283	Atomic-scale investigation of Lithiation/Delithiation mechanism in High-entropy spinel oxide with superior electrochemical performance. Chemical Engineering Journal, 2021, 420, 129838.	6.6	53
284	From Lithiumâ€Metal toward Anodeâ€Free Solidâ€State Batteries: Current Developments, Issues, and Challenges. Advanced Functional Materials, 2021, 31, 2106608.	7.8	98
285	Engineering Li/Na selectivity in 12-Crown-4â€“functionalized polymer membranes. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	65
286	MXene-Derived Quantum Dots for Energy Conversion and Storage Applications. Energy & Fuels, 2021, 35, 14304-14324.	2.5	41
287	Li4Mn5O12 Cathode for Both 3 V and 4 V Lithium-ion Batteries. Chemical Research in Chinese Universities, 2021, 37, 1031.	1.3	3
288	The electrochemical performance of manganese oxoborate cathodes for lithium-ion batteries: Effect of synthesis method. Ceramics International, 2021, 47, 35312-35319.	2.3	1

#	Article	IF	Citations
289	Reaction inhomogeneity coupling with metal rearrangement triggers electrochemical degradation in lithium-rich layered cathode. Nature Communications, 2021, 12, 5370.	5.8	44
290	Na2SO4â€"NaCl binary eutectic salt roasting to enhance extraction of lithium from pyrometallurgical slag of spent lithium-ion batteries. Chinese Journal of Chemical Engineering, 2022, 41, 294-300.	1.7	10
291	Guest ions pre-intercalation strategy of manganese-oxides for supercapacitor and battery applications. Journal of Energy Chemistry, 2021, 60, 480-493.	7.1	36
292	Thermalâ€Responsive and Fireâ€Resistant Materials for Highâ€Safety Lithiumâ€Ion Batteries. Small, 2021, 17, e2103679.	5.2	35
293	Long-life LiNi0.5Mn1.5O4/graphite lithium-ion cells with an artificial graphite-electrolyte interface. Energy Storage Materials, 2021, 43, 499-508.	9.5	22
294	Production of high-energy Li-ion batteries comprising silicon-containing anodes and insertion-type cathodes. Nature Communications, 2021, 12, 5459.	5.8	190
295	Feasibility of a Spherical Hollow Carbon Framework as a Stable Host Material for Reversible Metallic Li Storage. ACS Applied Materials & Interfaces, 2021, 13, 42732-42740.	4.0	5
296	Dual function Li-reactive coating from residual lithium on Ni-rich NCM cathode material for Lithium-ion batteries. Scientific Reports, 2021, 11, 18590.	1.6	23
297	Porous Sn obtained by selective electrochemical dissolution of melt-spun Zn70Sn30 alloys with lithium and sodium storage properties. Journal of Alloys and Compounds, 2021, 877, 160319.	2.8	3
298	High-voltage and high-safety nickel-rich layered cathode enabled by a self-reconstructive cathode/electrolyte interphase layer. Energy Storage Materials, 2021, 41, 495-504.	9.5	87
299	Uptake, Trapping, and Release of Organometallic Cations by Redox-Active Cationic Hosts. Journal of the American Chemical Society, 2021, 143, 16993-17003.	6.6	13
300	Amorphous Se species anchored into enclosed carbon skeleton bridged by chemical bonding toward advanced K-Se batteries. Journal of Energy Chemistry, 2021, 61, 319-326.	7.1	15
301	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.	2.5	31
302	A rechargeable zincâ€"air battery with decoupled metal oxidation and oxygen reduction reactions. Journal of Power Sources, 2021, 510, 230375.	4.0	2
303	Implanting MnO into a three-dimensional carbon network as superior anode materials for lithium-ion batteries. Chemical Engineering Journal Advances, 2021, 8, 100146.	2.4	8
304	Understanding solid electrolyte interphases: Advanced characterization techniques and theoretical simulations. Nano Energy, 2021, 89, 106489.	8.2	43
305	Exploring the performance of carbonate and ether-based electrolytes for anode-free lithium metal batteries operating under various conditions. Journal of Power Sources, 2021, 512, 230388.	4.0	6
306	Hierarchical modulation of NiSe2 nanosheets/nanodendrites by phase engineering on N-doped 3D porous graphene as self-supporting anode for superior lithium ion batteries. Applied Surface Science, 2021, 567, 150784.	3.1	12

#	Article	IF	Citations
307	Thermochemically driven crystal phase transfer via chlorination roasting toward the selective extraction of lithium from spent LiNi1/3Co1/3Mn1/3O2. Resources, Conservation and Recycling, 2021, 174, 105757.	5.3	44
308	Current state of high voltage olivine structured LiMPO4 cathode materials for energy storage applications: A review. Journal of Alloys and Compounds, 2021, 882, 160774.	2.8	55
309	Synthesize of 3D-conductive supramolecular gel and derived N-doped Feâ€“C as high-performance lithium-ion battery anodes. Vacuum, 2021, 193, 110532.	1.6	2
310	A novel hollow Co3O4@N-doped carbon nanobubble film composite for high-performance anode of lithium-ion batteries. Composites Part B: Engineering, 2021, 224, 109247.	5.9	21
311	Tailoring the redox-active transition metal content to enhance cycling stability in cation-disordered rock-salt oxides. Energy Storage Materials, 2021, 43, 275-283.	9.5	11
312	Role of electrolytes on electrochemical performance of hydrothermally grown Li2MnSiO4 cathode material for Li-ion battery application in the energy nexus frame work. Energy Nexus, 2021, 2, 100013.	3.3	4
313	Various advanced permeable substrates for lithium infusion in lithium metal batteries: A review of recent developments. Chemical Engineering Journal, 2021, 425, 131236.	6.6	14
314	Bioinspired PDA@TiO2 modification on high-voltage LiNi0.5Mn1.5O4 toward enhancing electrochemical performance. Journal of Alloys and Compounds, 2021, 889, 161690.	2.8	4
315	Morphology-tunable synthesis of CuO modified with Cu-Zn/Cu-Sn intermetallic compounds as high-performance anode for lithium-ion batteries. Journal of Alloys and Compounds, 2021, 889, 161637.	2.8	6
316	Concurrent recycling chemistry for cathode/anode in spent graphite/LiFePO4 batteries: Designing a unique cation/anion-co-workable dual-ion battery. Journal of Energy Chemistry, 2022, 64, 166-171.	7.1	92
317	Transition metal nitrides for electrochemical energy applications. Chemical Society Reviews, 2021, 50, 1354-1390.	18.7	580
318	LT-LiMn_{0.5}Ni_{0.5}O₂: a unique co-free cathode for high energy Li-ion cells. Chemical Communications, 2021, 57, 11009-11012.	2.2	8
319	Seawater Battery-Based Wireless Marine Buoy System With Battery Degradation Prediction and Multiple Power Optimization Capabilities. IEEE Access, 2021, 9, 104104-104114.	2.6	9
320	Graphite@silicon embedded in a carbon conformally coated tiny SiO₂nanoparticle matrix for high-performance lithium-ion batteries. Inorganic Chemistry Frontiers, 2021, 8, 4395-4406.	3.0	10
321	Recent Progress on Highâ€Performance Cathode Materials for Zincâ€Ion Batteries. Small Structures, 2021, 2, 2000064.	6.9	85
322	Data-driven state of charge estimation of lithium-ion batteries: Algorithms, implementation factors, limitations and future trends. Journal of Cleaner Production, 2020, 277, 124110.	4.6	147
323	Impact of Frictional Interactions on Conductivity, Diffusion, and Transference Number in Ether- and Perfluoroether-Based Electrolytes. Journal of the Electrochemical Society, 2020, 167, 120540.	1.3	16
324	Impact of Electrode and Cell Design on Fast Charging Capabilities of Cylindrical Lithium-Ion Batteries. Journal of the Electrochemical Society, 2020, 167, 130505.	1.3	37

#	Article	IF	Citations
325	Systematic Study of the Cathode Compositional Dependency of Cross-Talk Behavior in Li-Ion Battery. Journal of the Electrochemical Society, 2020, 167, 160508.	1.3	12
326	Assessing cathode property prediction via exchange-correlation functionals with and without long-range dispersion corrections. Physical Chemistry Chemical Physics, 2021, 23, 24726-24737.	1.3	8
327	Effect of Fluorine Substitution on the Electrochemical Property and Structural Stability of a Lithium-Excess Cation Disordered Rock-Salt Cathode. Chinese Physics Letters, 2021, 38, 088201.	1.3	1
328	Impact of Electrolyte Salts on Na Storage Performance for High-Surface-Area Carbon Anodes. ACS Applied Materials & Interfaces, 2021, 13, 48745-48752.	4.0	8
329	Ceria-Spiderweb Nanosheets Unlock the Energy-Storage Properties in the â€œSleepingâ€•Triplite (Mn2(PO4)F). ACS Applied Energy Materials, 0, , .	2.5	2
330	Role of impurity phases present in orthorhombic-Li2MnSiO4 towards the Li-reactivity and storage as LIB cathode. Applied Surface Science, 2022, 574, 151689.	3.1	7
331	Perspectives for next generation lithium-ion battery cathode materials. APL Materials, 2021, 9, .	2.2	44
332	A Cobaltâ€•and Manganeseâ€Free Highâ€Nickel Layered Oxide Cathode for Longâ€Life, Safer Lithiumâ€Ion Batteries. Advanced Energy Materials, 2021, 11, .	10.2	79
333	Chainlike Structure Formed in Iodine Monochloride Graphite Intercalation Compounds. Journal of Physical Chemistry C, 2021, 125, 23383-23389.	1.5	3
334	Improving interfacial stability of ultrahigh-voltage lithium metal batteries with single-crystal Ni-rich cathode via a multifunctional additive strategy. Journal of Colloid and Interface Science, 2022, 608, 1471-1480.	5.0	25
335	Role of Electrolyte in Overcoming the Challenges of LiNiO₂ Cathode in Lithium Batteries. ACS Energy Letters, 2021, 6, 3809-3816.	8.8	34
336	Research progress of polymer-inorganic filler solid composite electrolyte for lithium-ion batteries. Ionics, 2022, 28, 15-26.	1.2	26
337	A Quinone-Based Cathode Material for High-Performance Organic Lithium and Sodium Batteries. ACS Applied Energy Materials, 2021, 4, 12084-12090.	2.5	9
338	A Selfâ€Healable Sulfide/Polymer Composite Electrolyte for Longâ€Life, Lowâ€Lithiumâ€Excess Lithiumâ€Metal Batteries. Advanced Functional Materials, 2022, 32, 2106680.	7.8	28
339	Aluminumâ€“Silicon Alloy Foils as Low-Cost, Environmentally Friendly Anodes for Lithium-Ion Batteries. ACS Sustainable Chemistry and Engineering, 2021, 9, 14515-14524.	3.2	17
340	Unveiling Sodium Ion Pollution in Spray-Dried Precursors and Its Implications for the Green Upcycling of Spent Lithium-Ion Batteries. Environmental Science & Technology, 2021, 55, 14897-14905.	4.6	17
341	Effects of binder content on low-cost solvent-free electrodes made by dry-spraying manufacturing for lithium-ion batteries. Journal of Power Sources, 2021, 515, 230644.	4.0	19
342	Novel self-supporting multilevel-3D porous NiO nanowires with metal-organic gel coating via â€œlike dissolves likeâ€•to trigger high-performance binder-free lithium-ion batteries. Microporous and Mesoporous Materials, 2021, 328, 111483.	2.2	8

#	Article	IF	Citations
343	Separation of cobalt, nickel, and manganese in leach solutions of waste lithium-ion batteries using Dowex M4195 ion exchange resin. Hydrometallurgy, 2021, 206, 105757.	1.8	36
344	Impact of Lithium-Ion Cell Condition on Its Second Life Viability. Journal of the Electrochemical Society, 2020, 167, 110556.	1.3	16
345	Operando Observations of Reversible Î±-BiF₃ Conversion in Liquid Electrolyte by Synchrotron Radiation Diffraction and ⁷Li Nuclear Magnetic Resonance. Journal of the Electrochemical Society, 2020, 167, 120518.	1.3	3
346	Kinetically-controlled formation of Fe2O3 nanoshells and its potential in Lithium-ion batteries. Chemical Engineering Journal, 2022, 433, 133188.	6.6	6
347	Highâ€Entropy Energy Materials in the Age of Big Data: A Critical Guide to Nextâ€Generation Synthesis and Applications. Advanced Energy Materials, 2021, 11, 2102355.	10.2	37
348	Steric Effect Tuned Ion Solvation Enabling Stable Cycling of High-Voltage Lithium Metal Battery. Journal of the American Chemical Society, 2021, 143, 18703-18713.	6.6	205
349	Ti3C2 MXene with pillared structure for hybrid magnesium-lithium batteries cathode material with long cycle life and high rate capability. Journal of Colloid and Interface Science, 2022, 608, 2455-2462.	5.0	15
350	Two-dimensional ZnS@N-doped carbon nanoplates for complete lithium ion batteries. Nanotechnology, 2022, 33, 065406.	1.3	5
351	Achieving superior high-rate cyclability of LiNi0.5Mn1.5O4 cathode material via constructing stable CuO modification interface. Journal of Electroanalytical Chemistry, 2021, 903, 115825.	1.9	6
352	Realizing continuous cation order-to-disorder tuning in a class of high-energy spinel-type Li-ion cathodes. Matter, 2021, 4, 3897-3916.	5.0	32
353	Understanding the effect of coating-drying operating variables on electrode physical and electrochemical properties of lithium-ion batteries. Journal of Power Sources, 2021, 516, 230689.	4.0	18
354	Exploiting the Degradation Mechanism of NCM523â€‰||â€‰Graphite Lithiumâ€Ion Full Cells Operated at High Voltage. ChemSusChem, 2021, 14, 491-491.	3.6	2
355	Novel graphitic sheets with ripple-like folds as an NCA cathode coating layer for high-energy-density lithium-ion batteries. Nanotechnology, 2021, 32, 08LT01.	1.3	6
356	Flux Upcycling of Spent NMC111 to Nickel-Rich NMC Cathodes in Reciprocal Ternary Molten Salts. SSRN Electronic Journal, 0, , .	0.4	0
357	Nonaqueous hybrid redox flow energy storage with a sodiumâ€“TEMPO chemistry and a single-ion solid electrolyte separator. Energy Advances, 2022, 1, 21-27.	1.4	3
358	Mechanochemical synthesis of sodium carboxylates as anode materials in sodium ion batteries. Journal of Materials Chemistry A, 2021, 9, 27361-27369.	5.2	7
359	Single versus poly-crystalline layered oxide cathode materials for solid-state battery applications - a short review article. Current Opinion in Electrochemistry, 2021, 31, 100877.	2.5	16
360	Second life and recycling: Energy and environmental sustainability perspectives for high-performance lithium-ion batteries. Science Advances, 2021, 7, eabi7633.	4.7	94

#	Article	IF	Citations
361	Seeking direct cathode regeneration for more efficient lithium-ion battery recycling. Current Opinion in Electrochemistry, 2022, 31, 100875.	2.5	12
362	A Baseline Kinetic Study of Co-Free Layered Li_{1+x}(Ni_{0.5}Mn_{0.5})_{1â^'x}O₂ Positive Electrode Materials for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2021, 168, 110502.	1.3	4
363	Review of electrochemical production of doped graphene for energy storage applications. Journal of Energy Storage, 2022, 46, 103527.	3.9	14
364	Strategies for the Analysis of Graphite Electrode Function. Advanced Energy Materials, 2021, 11, 2102693.	10.2	47
365	Offline and Online Blended Machine Learning for Lithium-Ion Battery Health State Estimation. IEEE Transactions on Transportation Electrification, 2022, 8, 1604-1618.	5.3	38
366	Past, present, and future of electrochemical energy storage: A brief perspective. Frontiers of Nanoscience, 2021, , 1-28.	0.3	2
367	In defence of oxidation states. Dalton Transactions, 2022, 51, 400-410.	1.6	9
368	Recent progress of magnetic field application in lithium-based batteries. Nano Energy, 2022, 92, 106703.	8.2	55
369	Recent advances of composite electrolytes for solid-state Li batteries. Journal of Energy Chemistry, 2022, 67, 524-548.	7.1	47
370	Simultaneous optimization of K/Co co-substituted Na3V2(PO4)3/C nano particles enwrapped on lamellar rGO substrate with high performance for asymmetric sodium ion full cell. Applied Surface Science, 2022, 578, 152000.	3.1	14
371	The Functions and Applications of Fluorinated Interface Engineering in Liâ€Based Secondary Batteries. Small Science, 2021, 1, 2100066.	5.8	21
372	A limitation map of performance for porous electrodes in lithium-ion batteries. IScience, 2021, 24, 103496.	1.9	5
373	Dual-shell silicate and alumina coating for long lasting and high capacity lithium ion batteries. Journal of Energy Chemistry, 2022, 68, 314-323.	7.1	1
374	Stable Dendrite-Free Sodiumâ€“Sulfur Batteries Enabled by a Localized High-Concentration Electrolyte. Journal of the American Chemical Society, 2021, 143, 20241-20248.	6.6	71
375	Investigation of structure and cycling performance of Nb-doped nickel-rich single-crystal ternary cathode materials. Ionics, 2022, 28, 747-757.	1.2	11
376	Positive Role of Fluorine Impurity in Recovered LiNi_{0.6}Co_{0.2}Mn_{0.2}O₂ Cathode Materials. ACS Applied Materials & Interfaces, 2021, 13, 57171-57181.	4.0	20
377	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.	2.5	7
378	Tungsten Infused Grain Boundaries Enabling Universal Performance Enhancement of Co-Free Ni-Rich Cathode Materials. Journal of the Electrochemical Society, 2021, 168, 120514.	1.3	27

#	Article	IF	Citations
379	Unveiling the Role and Mechanism of Nb Doping and In Situ Carbon Coating on Improving Lithiumâ€Ion Storage Characteristics of Rodâ€Like Morphology FeF₃Â·0.33H₂O. Small, 2022, 18, e2105193.	5.2	10
380	Effect of crystallite geometries on electrochemical performance of porous intercalation electrodes by multiscale operando investigation. Nature Materials, 2022, 21, 217-227.	13.3	35
381	Spontaneous Strain Buffer Enables Superior Cycling Stability in Single-Crystal Nickel-Rich NCM Cathode. Nano Letters, 2021, 21, 9997-10005.	4.5	58
382	Uncertain Future of American Lithium: A Perspective until 2050. Environmental Science & Technology, 2021, 55, 16184-16194.	4.6	19
383	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, .	10.2	40
384	A Review of Performance Attenuation and Mitigation Strategies of Lithiumâ€Ion Batteries. Advanced Functional Materials, 2022, 32, 2107769.	7.8	43
385	Nitrogen-rich Graphdiyne Film for Efficiently Suppressing the Methanol Crossover in Direct Methanol Fuel Cells. Chemical Research in Chinese Universities, 2021, 37, 1275-1282.	1.3	2
386	A comprehensive evaluation of Co, Ni, Cu and Zn doped manganese oxalate for lithium storage. Journal of Solid State Chemistry, 2022, 306, 122728.	1.4	1
387	Optimizing quasi-solid-state sodium storage performance of Na3V2(PO4)2F2.5O0.5 cathode by structural design plus nitrogen doping. Chemical Engineering Journal, 2022, 433, 133557.	6.6	6
388	Fe³⁺_xCr³⁺_{2â€“x}Cr⁶⁺₄O₁₅ A High-Capacity Cathode Material Synthesized Using an Ion-Exchange Chromatographic Method for Li-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 55172-55177.	4.0	1
389	Advances of Organosulfur Materials for Rechargeable Metal Batteries. Advanced Science, 2022, 9, e2103989.	5.6	36
390	Heavy Fluorination via Ion Exchange Achieves Highâ€Performance Liâ€“Mnâ€“Oâ€“F Layered Cathode for Liâ€Ion Batteries. Small, 2022, 18, e2103499.	5.2	10
391	From Atoms to Cells: Multiscale Modeling of LiNi_xMn_yCo_zO₂ Cathodes for Li-Ion Batteries. ACS Energy Letters, 2022, 7, 108-122.	8.8	16
392	Preparation and application of Ce-Cu based metal organic framework/biomass carbon composites in energy storage. Journal of Alloys and Compounds, 2022, 896, 163081.	2.8	17
393	Well-dispersed Li2CoTi3O8 nanoparticles as a multifunctional material for lithium-ion batteries and lithium-sulfur batteries. Journal of Alloys and Compounds, 2022, 896, 162926.	2.8	18
394	Electrochemical Properties of Pristine and Vanadium Doped LiFePO4 Nanocrystallized Glasses. Energies, 2021, 14, 8042.	1.6	5
395	Study on Li ion diffusion in Li_xV₂O₅ using first principle calculations and kinetic Monte Carlo simulations. Journal Physics D: Applied Physics, 2022, 55, 115004.	1.3	2
396	A review on passive and active strategies of enhancing the safety of lithium-ion batteries. International Journal of Heat and Mass Transfer, 2022, 184, 122288.	2.5	82

#	Article	IF	Citations
397	Thermodynamic Studies on Energy Density of Batteries. , 2022, , 275-285.		0
398	Determinants of lithium-ion battery technology cost decline. Energy and Environmental Science, 2021, 14, 6074-6098.	15.6	46
399	Li1.2Mn0.54Ni0.13Co0.13O2 nanosheets with porous structure as a high-performance cathode material for lithium-ion batteries. RSC Advances, 2021, 11, 36588-36595.	1.7	2
400	Face to Face at the Cathode Electrolyte Interphase: From Interface Features to Interphase Formation and Dynamics. Advanced Materials Interfaces, 2022, 9, .	1.9	38
401	The Role of Critical Raw Materials for Novel Strategies in Sustainable Secondary Batteries. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, .	0.8	4
402	Improving Structural and Moisture Stability of P2-Layered Cathode Materials for Sodium-Ion Batteries. ACS Applied Energy Materials, 2022, 5, 1252-1261.	2.5	21
403	Facile activation of lithium slag for the hydrothermal synthesis of zeolite A with commercial quality and high removal efficiency for the isotope of radioactive ⁹⁰Sr. Inorganic Chemistry Frontiers, 2022, 9, 468-477.	3.0	12
404	Removing lithium residues via H3BO3 washing and concurrent in-situ formation of a lithium reactive coating on Ni-rich cathode materials toward enhanced electrochemical performance. Electrochimica Acta, 2022, 406, 139879.	2.6	8
405	Li1+xMn2O4 synthesized by in-situ lithiation for improving sulfur redox kinetics of Li-S batteries. Electrochimica Acta, 2022, 404, 139780.	2.6	5
406	Unlocking the origin of triggering hysteretic oxygen capacity in divalent species incorporated O-type sodium layered-oxide cathodes. Energy Storage Materials, 2022, 45, 432-441.	9.5	7
407	Cobalt-doped TaOCl3 nanoparticles/carbon compounds with advanced specific capacity for lithium-ion batteries. Journal of Alloys and Compounds, 2022, 897, 163193.	2.8	10
408	Expanding the low-temperature and high-voltage limits of aqueous lithium-ion battery. Energy Storage Materials, 2022, 45, 903-910.	9.5	58
409	Electronic structure regulation of Na2FePO4F cathode toward superior high-rate and high-temperature sodium-ion batteries. Energy Storage Materials, 2022, 45, 851-860.	9.5	18
410	Novel Si@C/P anode materials with improved cyclability and rate capacity for lithium-ion batteries. Journal of Alloys and Compounds, 2022, 899, 163237.	2.8	15
411	A generalizable, data-driven online approach to forecast capacity degradation trajectory of lithium batteries. Journal of Energy Chemistry, 2022, 68, 548-555.	7.1	46
412	Thermal management and phase change heat transfer characteristics of LiFePO4 batteries by cooling phase change materials. Thermal Science, 2022, 26, 3881-3896.	0.5	0
413	Recycling of Li-Ion and Lead Acid Batteries: A Review. Journal of the Indian Institute of Science, 2022, 102, 281-295.	0.9	27
414	A Facile Potential Hold Method for Fostering an Inorganic Solidâ€Electrolyte Interphase for Anodeâ€Free Lithiumâ€Metal Batteries. Angewandte Chemie, 0, , .	1.6	3

#	Article	IF	Citations
415	Singleâ€Crystal LiNi_xMn_yCo_{1â^'}_x_{â^'}_y₂₁O₂ Cathodes for Extreme Fast Charging. Small, 2022, 18, e2105833.	5.2	31
416	Potential use of magnesium industrial waste for synthesis of Li and Mg co-doped LiMn2O4 nanoparticles as cathode material for Li-ion batteries: Effect of sintering temperature. Nano Research, 2022, 15, 4500-4516.	5.8	7
417	Relieving the Reaction Heterogeneity at the Subparticle Scale in Ni-Rich Cathode Materials with Boosted Cyclability. ACS Applied Materials & Interfaces, 2022, 14, 6729-6739.	4.0	4
418	Flux upcycling of spent NMC 111 to nickel-rich NMC cathodes in reciprocal ternary molten salts. IScience, 2022, 25, 103801.	1.9	20
419	Thermal Safety Analysis of Disordered Li-Rich Rock salt Li_{1.3}Mn_{0.4}Nb_{0.3}O₂ Cathode. ACS Applied Energy Materials, 2022, 5, 516-523.	2.5	3
420	Learn from nature: Bioâ€inspired structure design for lithiumâ€ion batteries. EcoMat, 2022, 4, .	6.8	8
421	High-Performance Anode-Free Liâ€“S Batteries with an Integrated Li₂Sâ€“Electrocatalyst Cathode. ACS Energy Letters, 2022, 7, 583-590.	8.8	65
422	Co/Li-dual-site doping towards LiCoO₂ as a high-voltage, fast-charging, and long-cycling cathode material. Journal of Materials Chemistry A, 2022, 10, 5295-5304.	5.2	21
423	Recycling/Reuse of Current Collectors from Spent Lithiumâ€ion Batteries: Benefits and Issues. Advanced Sustainable Systems, 2022, 6, .	2.7	19
424	Correlating the mechanical strength of positive electrode material particles to their capacity retention. Cell Reports Physical Science, 2022, 3, 100714.	2.8	7
425	Nextâ€Generation Cobaltâ€Free Cathodes â€“ A Prospective Solution to the Battery Industry's Cobalt Problem. Advanced Energy Materials, 2022, 12, .	10.2	71
426	Principles and Challenges of Lithiumâ€“Sulfur Batteries. Modern Aspects of Electrochemistry, 2022, , 1-18.	0.2	1
427	An Airâ€Stable Highâ€Nickel Cathode with Reinforced Electrochemical Performance Enabled by Convertible Amorphous Li₂CO₃ Modification. Advanced Materials, 2022, 34, e2108947.	11.1	83
428	Role of Electron-Deficient Imidazoles in Ion Transport and Conductivity in Solid-State Polymer Electrolytes. Macromolecules, 2022, 55, 971-977.	2.2	5
429	Stabilizing effects of atomic Ti doping on high-voltage high-nickel layered oxide cathode for lithium-ion rechargeable batteries. Nano Research, 2022, 15, 4091-4099.	5.8	96
430	The positive role of vitamin C in spindle-like LiFePO4/C cathode derived from two wastes. Ionics, 2022, 28, 1583-1593.	1.2	5
431	Raman Diagnostics of Cathode Materials for Li-Ion Batteries Using Multi-Wavelength Excitation. Batteries, 2022, 8, 10.	2.1	3
432	The road to potassium-ion batteries. , 2022, , 265-307.		1

#	Article	IF	Citations
433	A Facile Potential Hold Method for Fostering an Inorganic Solidâ€Electrolyte Interphase for Anodeâ€Free Lithiumâ€Metal Batteries. Angewandte Chemie - International Edition, 2022, 61, .	7.2	36
434	Precise surface control of cathode materials for stable lithium-ion batteries. Chemical Communications, 2022, 58, 1454-1467.	2.2	6
435	Creating a rechargeable world. CheM, 2022, 8, 312-318.	5.8	24
436	Oxygen Loss in Layered Oxide Cathodes for Li-Ion Batteries: Mechanisms, Effects, and Mitigation. Chemical Reviews, 2022, 122, 5641-5681.	23.0	108
437	Lithium-Ion Battery Recyclingâ”€Overview of Techniques and Trends. ACS Energy Letters, 2022, 7, 712-719.	8.8	164
438	Enhancing the long-cycling performance of a LiNi_{0.8}Co_{0.15}Al_{0.05}O₂@LaNiO₃ cathode material by surface modification. Sustainable Energy and Fuels, 2022, 6, 1289-1300.	2.5	1
439	Interfacial Design for a 4.6ÂV Highâ€Voltage Singleâ€Crystalline LiCoO₂ Cathode. Advanced Materials, 2022, 34, e2108353.	11.1	98
440	Computation and Simulation. Modern Aspects of Electrochemistry, 2022, , 355-395.	0.2	1
441	Magnesium Substitution in Niâ€Rich NMC Layered Cathodes for Highâ€Energy Lithium Ion Batteries. Advanced Energy Materials, 2022, 12, .	10.2	63
442	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.	3.2	38
443	Atomic-Level Changes during Electrochemical Cycling of Oriented LiMn₂O₄ Cathodic Thin Films. ACS Applied Materials & Interfaces, 2022, 14, 6507-6517.	4.0	9
444	Bi nanoparticles in situ encapsulated by carbon film as high-performance anode materials for Li-ion batteries. Journal of Energy Chemistry, 2022, 69, 524-530.	7.1	27
445	Preparation of Li2MnO3 nanowires with structural defects as high rate and high capacity cathodes for lithium-ion batteries. Applied Surface Science, 2022, 585, 152605.	3.1	8
446	Stable layered-layered-spinel structure of the Li1.2Ni0.13Co0.13Mn0.54O2 cathode synthesized by ball-milling assisted solid-state method. Journal of Electroanalytical Chemistry, 2022, 907, 116050.	1.9	12
447	Effects of Elemental Modulation on Phase Purity and Electrochemical Properties of Coâ€free Highâ€Entropy Spinel Oxide Anodes for Lithiumâ€Ion Batteries. Advanced Functional Materials, 2022, 32, .	7.8	48
448	Quantitative analysis of aging and detection of commercial 18650 lithium-ion battery under slight overcharging cycling. Journal of Cleaner Production, 2022, 340, 130756.	4.6	13
449	High zinc-ion intercalation reaction activity of MoS2 cathode based on regulation of thermodynamic metastability and interlayer water. Electrochimica Acta, 2022, 410, 140016.	2.6	16
450	Application of Guar Gum and its Derivatives as Green Binder/Separator for Advanced Lithiumâ€Ion Batteries. ChemistryOpen, 2022, 11, e202100209.	0.9	10

#	Article	IF	Citations
451	Reduced Graphene Oxide Aerogels with Functionalization-Mediated Disordered Stacking for Sodium-Ion Batteries. Batteries, 2022, 8, 12.	2.1	5
452	Activity volcano plots for the oxygen reduction reaction using FeN4 complexes: From reported experimental data to the electrochemical meaning. Current Opinion in Electrochemistry, 2022, 32, 100923.	2.5	12
453	Universal triquinoxalinylene (3Q) molecule electrodes for ultrafast and ultrastable Li+ storage. Energy Storage Materials, 2022, 46, 322-328.	9.5	5
454	Recent progress and future perspective on practical silicon anode-based lithium ion batteries. Energy Storage Materials, 2022, 46, 482-502.	9.5	206
455	Biomass-derived nitrogen-doped carbon on LiFePO4 material for energy storage applications. Journal of Alloys and Compounds, 2022, 902, 163720.	2.8	14
456	Preparation and electrochemical investigation of single-crystal LiNi_{0.6}Co_{0.2}Mn_{0.2}O₂ for high-performance lithium-ion batteries. New Journal of Chemistry, 2022, 46, 4877-4883.	1.4	10
457	A carbonyl-rich covalent organic framework as a high-performance cathode material for aqueous rechargeable zinc-ion batteries. Chemical Science, 2022, 13, 2385-2390.	3.7	66
458	Preparation of nanorod-assembled CNT-embedded LiMnPO₄ hollow microspheres for enhanced electrochemical performance of lithium-ion batteries. CrystEngComm, 2022, 24, 2149-2158.	1.3	4
459	Highly Graphitic Carbon Coating on Li_{1.25}Nb_{0.25}V_{0.5}O₂ Derived from a Precursor with a Perylene Core for High-Power Battery Applications. Chemistry of Materials, 2022, 34, 1946-1955.	3.2	7
460	Sodium mechanics: Effects of temperature, strain rate, and grain rotation and implications for sodium metal batteries. Extreme Mechanics Letters, 2022, 52, 101644.	2.0	3
461	The impact of electrode with carbon materials on safety performance of lithium-ion batteries: A review. Carbon, 2022, 191, 448-470.	5.4	164
462	Ultrahigh Active Material Content and Highly Stable Ni-Rich Cathode Leveraged by Oxidative Chemical Vapor Deposition. SSRN Electronic Journal, 0, , .	0.4	0
463	Accelerated Synthesis of Li(Ni _{0.8}Co _{0.1}Mn) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 267 Tc Pyrolysis and Additives. SSRN Electronic Journal, 0, , .	0.4	0
464	A Flame-Retardant, High Ionic-Conductivity and Eco-Friendly Separator Prepared by Papermaking Method for High-Performance and Fire Safety Lithium-Ion Batteries. SSRN Electronic Journal, 0, , .	0.4	0
465	Reducing Intrinsic Property Issues of Ni-Rich NMC811 with Novel Coating Concept of Quasi-Solid Materials Towards High-Safety Li-Ion Batteries. SSRN Electronic Journal, 0, , .	0.4	0
466	Single step synthesis of W-modified LiNiO₂ using an ammonium tungstate flux. Journal of Materials Chemistry A, 2022, 10, 7841-7855.	5.2	17
467	Effect of Precursor Structure Transformation on Synthesis and Performance of Lini0.5co0.2mn0.3o2 Cathode Material. SSRN Electronic Journal, 0, , .	0.4	0
468	Thermal stabilities of Mn-based active materials in combination with the ceramic electrolyte LATP for ASSB bulk cathodes. Materials Advances, 2022, 3, 4015-4025.	2.6	3

#	Article	IF	Citations
469	Identifying surface degradation, mechanical failure, and thermal instability phenomena of high energy density Ni-rich NCM cathode materials for lithium-ion batteries: a review. RSC Advances, 2022, 12, 5891-5909.	1.7	36
470	Multifunctional integrated VN/V₂O₅ heterostructure sulfur hosts for advanced lithiumâ€“sulfur batteries. Nanoscale, 2022, 14, 4557-4565.	2.8	4
471	Polyanionic insertion hosts for aqueous rechargeable batteries. Journal of Materials Chemistry A, 2022, 10, 6376-6396.	5.2	14
472	Enhanced Electrochemical Performance of O3-Type Nani0.5mn0.3co0.2o2 Cathodes for Sodium-Ion Batteries Via Al-Doping. SSRN Electronic Journal, 0, , .	0.4	0
473	Quantitative Ion Exchange Reactions to Form from Li2 Xvac2-2 X La2ti3o9+ X Defect Layered Perovskites from H2la2ti3o10 Via Solid Acid/Base Reaction. SSRN Electronic Journal, 0, , .	0.4	0
474	Challenges and advances in wide-temperature rechargeable lithium batteries. Energy and Environmental Science, 2022, 15, 1711-1759.	15.6	138
475	Lithium-rich sulfide/selenide cathodes for next-generation lithium-ion batteries: challenges and perspectives. Chemical Communications, 2022, 58, 3591-3600.	2.2	12
476	Electrospun Ternary Composite Metal Oxide Fibers as an Anode for Lithium-Ion Batteries. Frontiers in Materials, 2022, 9, .	1.2	3
477	Importance of Chemical Distortion on the Hysteretic Oxygen Capacity in Li-Excess Layered Oxides. ACS Applied Materials & Interfaces, 2022, 14, 9057-9065.	4.0	5
478	CHAIN: unlocking informatics-aided design of Li metal anode from materials to applications. Rare Metals, 2022, 41, 1477-1489.	3.6	42
479	Allâ€Climate and Ultrastable Dualâ€Ion Batteries with Long Life Achieved via Synergistic Enhancement of Cathode and Anode Interfaces. Advanced Functional Materials, 2022, 32, .	7.8	60
480	Roomâ€temperature metalâ€“sulfur batteries: What can we learn from <scp>lithiumâ€“sulfur</scp>?. InformaÄnÃ-MateriÃ¡ly, 2022, 4, .	8.5	45
481	Understanding Lithium Local Environments in LiMn_{0.5}Ni_{0.5}O₂ Cathodes: A DFT-Supported ⁶Li Solid-State NMR Study. Journal of Physical Chemistry C, 2022, 126, 4276-4285.	1.5	2
482	Surfactant-assisted hydrothermal synthesis of NiFe2O4/reduced graphene oxide composites. Materials Today: Proceedings, 2022, 62, 5705-5711.	0.9	4
483	Cobaltâ€Free Cathode Materials: Families and their Prospects. Advanced Energy Materials, 2022, 12, .	10.2	77
484	Screening LiMn₂O₄ Surface Modification Schemes under Theoretical Guidance. ACS Applied Materials & Interfaces, 2022, 14, 10353-10362.	4.0	14
485	Synthesis and application of nano-organosilicon coating through cyclonic plasma deposition on a polymeric separator for lithium-ion batteries. Journal of Coatings Technology Research, 0, , 1.	1.2	1
486	Systematic Review of Lithium-Ion Battery Recycling Literature Using ProKnow-C and Methodi Ordinatio. Energies, 2022, 15, 1485.	1.6	6

#	Article	IF	Citations
487	Operating Highâ€Energy Lithiumâ€Metal Pouch Cells with Reduced Stack Pressure Through a Rational Lithiumâ€Host Design. Advanced Energy Materials, 2022, 12, .	10.2	10
488	Silkworm Protein-Derived Nitrogen-Doped Carbon-Coated Li[Ni0.8Co0.15Al0.05]O2 for Lithium-Ion Batteries. Nanomaterials, 2022, 12, 1166.	1.9	4
489	Covalent Organic Framework as an Efficient Protection Layer for a Stable Lithiumâ€Metal Anode. Angewandte Chemie, 2022, 134, .	1.6	8
490	Review of Multifunctional Separators: Stabilizing the Cathode and the Anode for Alkali (Li, Na, and K) Metalâ€“Sulfur and Selenium Batteries. Chemical Reviews, 2022, 122, 8053-8125.	23.0	132
491	Atomic layer deposition of metal phosphates. Applied Physics Reviews, 2022, 9, .	5.5	7
492	Probing the improved stability for high nickel cathode via dual-element modification in lithium-ion. Chinese Physics B, 0, , .	0.7	0
493	Enhanced ions and electrons transmission enables high-performance KxMnO@C cathode for hybrid supercapacitors. Ceramics International, 2022, 48, 16516-16521.	2.3	2
494	Migration Barrier Estimation of Carbon in Lead for Leadâ€“Acid Battery Applications: A Density Functional Theory Approach. Solids, 2022, 3, 177-187.	1.1	2
495	Effect of Eliminating Water in Prussian Blue Cathode for Sodiumâ€Ion Batteries. Advanced Functional Materials, 2022, 32, .	7.8	66
496	Microwave-assisted solvothermal synthesis of mesoporous rod-like manganese oxalate as a high-performance anode for lithium-ion batteries. Journal of Materials Science: Materials in Electronics, 2022, 33, 8193-8208.	1.1	1
497	Effect of Lithiation upon the Shear Strength of NMC811 Single Crystals. Journal of the Electrochemical Society, 2022, 169, 040511.	1.3	9
498	Influences of multi factors on thermal runaway induced by overcharging of lithium-ion battery. Journal of Energy Chemistry, 2022, 70, 531-541.	7.1	32
499	Controversy on necessity of cobalt in nickel-rich cathode materials for lithium-ion batteries. Journal of Industrial and Engineering Chemistry, 2022, 110, 120-130.	2.9	13
500	Covalent Organic Framework as an Efficient Protection Layer for a Stable Lithiumâ€Metal Anode. Angewandte Chemie - International Edition, 2022, 61, .	7.2	45
501	Singleâ€Crystalline Cathodes for Advanced Liâ€Ion Batteries: Progress and Challenges. Small, 2022, 18, e2107048.	5.2	43
502	Firstâ€Principles Studies on the Atomistic Properties of Metallic Magnesium as Anode Material in Magnesiumâ€Ion Batteries. ChemSusChem, 2022, 15, .	3.6	9
503	Ethylene Carbonateâ€Free Electrolytes for Stable, Safer Highâ€Nickel Lithiumâ€Ion Batteries. Advanced Energy Materials, 2022, 12, .	10.2	27
504	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.	1.3	1

#	Article	IF	Citations
505	Identifying Key Aspects of Thermal Runaway Modelling for Lithium-ion Battery Cells. SAE International Journal of Advances and Current Practices in Mobility, 0, 4, 1964-1976.	2.0	4
506	Intercalation-type positive electrode materials for nonaqueous calcium-ion batteries. Chemical Physics Reviews, 2022, 3, .	2.6	3
507	Phase Engineering in Cobalt Sulfide with Multiple Redox Modes for Highâ€Performance Lithiumâ€Ion Batteries. ChemNanoMat, 2022, 8, .	1.5	3
508	Rational Design of Mixed Polyanion Electrodes Na_xV₂P_{3â€“i}(Si/S)_iO₁₂ for Sodium Batteries. Chemistry of Materials, 2022, 34, 3373-3382.	3.2	16
509	Anionâ€“Diluent Pairing for Stable High-Energy Li Metal Batteries. ACS Energy Letters, 2022, 7, 1338-1347.	8.8	108
510	Polyimide-Based Materials for Lithium-Ion Battery Separator Applications: A Bibliometric Study. International Journal of Polymer Science, 2022, 2022, 1-12.	1.2	7
511	Sodium dodecyl sulfate (SDS)-assisted preparation of homogeneous monodisperse MnCO3 microspheres and its application to the synthesis of LiMn2O4. Ceramics International, 2022, 48, 10113-10119.	2.3	6
512	High-Energy Batteries: Beyond Lithium-Ion and Their Long Road to Commercialisation. Nano-Micro Letters, 2022, 14, 94.	14.4	79
513	Exploring the characteristics of technological knowledge interaction dynamics in the field of solid-state batteries: A patent-based approach. Journal of Cleaner Production, 2022, 353, 131689.	4.6	10
515	Reviewâ€”Surface Coatings for Cathodes in Lithium Ion Batteries: From Crystal Structures to Electrochemical Performance. Journal of the Electrochemical Society, 2022, 169, 043504.	1.3	44
517	Fast and Simple Ag/Cu Ion Exchange on Cu Foil for Anode-Free Lithium-Metal Batteries. ACS Applied Materials & Interfaces, 2022, 14, 17454-17460.	4.0	21
518	Modification of LiMn2O4 surfaces by controlling the Acidâ€“Base surface chemistry of atomic layer deposition. Applied Surface Science, 2022, 599, 153329.	3.1	5
519	CeO2-NiO/N,O-rich porous carbon derived from covalent-organic framework for enhanced Li-storage. Chemical Engineering Journal, 2022, 442, 136298.	6.6	17
520	Designing Hybrid Artificial Interphases with Dilithium Vinylphosphonate for Lithium Batteries with Siâ€“Graphite Anodes. ACS Applied Energy Materials, 2022, 5, 4673-4683.	2.5	2
521	Pre-Lithiation Strategies and Energy Density Theory of Lithium-Ion and Beyond Lithium-Ion Batteries. Journal of the Electrochemical Society, 2022, 169, 040532.	1.3	7
522	Accelerated synthesis of Li(Ni0.8Co0.1Mn0.1)O2 cathode materials using flame-assisted spray pyrolysis and additives. Journal of Power Sources, 2022, 528, 231244.	4.0	8
523	Optimized synthesis of cyclic fluorinated sulfonylimide lithium salts to suppress aluminum corrosion in lithium-ion batteries. Journal of Fluorine Chemistry, 2022, 257-258, 109975.	0.9	5
525	Unveiling the impact of Mg doping and in-situ Li reactive coating on the Ni-rich cathode material for LIBs. Solid State Ionics, 2022, 378, 115886.	1.3	6

#	Article	IF	Citations
526	Ultrahigh active material content and highly stable Ni-rich cathode leveraged by oxidative chemical vapor deposition. Energy Storage Materials, 2022, 48, 1-11.	9.5	23
527	Preparation and characterization of fluorine-substituted LiFeBO3 with carbon coating to enhance electrochemical performance and stability as a cathode material for Li-ion batteries. Journal of Power Sources, 2022, 533, 231395.	4.0	7
528	Revealing the superlative electrochemical properties of o-B2N2 monolayer in Lithium/Sodium-ion batteries. Nano Energy, 2022, 96, 107066.	8.2	29
529	The origin of the aggressive degradation of Ni-rich transition metal oxide cathodes for high-energy density lithium-ion batteries. Journal of Solid State Chemistry, 2022, 310, 123040.	1.4	3
530	Metal-organic framework derived cobalt phosphide nanoparticles encapsulated within hierarchical hollow carbon superstructure for stable sodium storage. Chemical Engineering Journal, 2022, 438, 134279.	6.6	11
531	A flame-retardant, high ionic-conductivity and eco-friendly separator prepared by papermaking method for high-performance and superior safety lithium-ion batteries. Energy Storage Materials, 2022, 48, 123-132.	9.5	45
532	Development of a lifetime model for large format nickel-manganese-cobalt oxide-based lithium-ion cell validated using a real-life profile. Journal of Energy Storage, 2022, 50, 104289.	3.9	5
533	Synthesis of three-dimensional honeycomb-like Fe3N@NC composites with enhanced lithium storage properties. Carbon, 2022, 192, 162-169.	5.4	26
534	Trimetallic metalâ€“organic frameworks and derived materials for environmental remediation and electrochemical energy storage and conversion. Coordination Chemistry Reviews, 2022, 461, 214505.	9.5	95
535	Revealing the critical effect of solid electrolyte interphase on the deposition and detriment of Co(â…¡) ions to graphite anode. Journal of Energy Chemistry, 2022, 69, 389-396.	7.1	13
536	Stabilization of crystal and interfacial structure of Ni-rich cathode material by vanadium-doping. Journal of Colloid and Interface Science, 2022, 617, 193-203.	5.0	7
537	Dictating the interfacial stability of nickel-rich LiNi0.90Co0.05Mn0.05O2 via a diazacyclo electrolyte additive â€“ 2-Fluoropyrazine. Journal of Colloid and Interface Science, 2022, 618, 431-441.	5.0	10
538	Controlling the metal work function through atomic-scale surface engineering. Applied Surface Science, 2022, 589, 152932.	3.1	2
539	One-step hydrothermal synthesis of coordination polymers with high specific capacity and superior lithium storage properties. Journal of Solid State Chemistry, 2022, 311, 123104.	1.4	1
540	Accelerating cathode material discovery through ab initio random structure searching. APL Materials, 2021, 9, 121111.	2.2	13
541	Enhanced Electrochemical Performance of MOF-Derived Nitrogen-Enriched Porous Carbon Coated with Ag as the Cathode for Lithium-Sulfur Batteries. Nano, 2021, 16, .	0.5	0
542	Enhancement of electrochemical performance in lithium-ion battery via tantalum oxide coated nickel-rich cathode materials. Chinese Physics B, 2022, 31, 058101.	0.7	2
543	Nitrogen and Oxygen Coâ€Doped Porous Hard Carbon Nanospheres with Coreâ€Shell Architecture as Anode Materials for Superior Potassiumâ€Ion Storage. Small, 2022, 18, e2104296.	5.2	33

#	Article	IF	Citations
544	Module-Designed Carbon-Coated Separators for High-Loading, High-Sulfur-Utilization Cathodes in Lithiumâ€“Sulfur Batteries. Molecules, 2022, 27, 228.	1.7	16
545	Spent Graphite from End-of-Life Lithium-Ion Batteries (LIBs) as a Promising Nanoadditive to Boost Road Pavement Performance. Materials, 2021, 14, 7908.	1.3	7
546	Lithium Tracer Diffusion in Sub-Stoichiometric Layered Lithium-Metal-Oxide Compounds. Defect and Diffusion Forum, 0, 413, 125-135.	0.4	1
547	Recent Development of Nickel-Rich and Cobalt-Free Cathode Materials for Lithium-Ion Batteries. Batteries, 2021, 7, 84.	2.1	27
548	Highâ€voltage performance of <scp> P2â€Na _x Mn ₀ </scp> _. <scp> ₅ Co ₀ </scp> _. <scp> ₅ O ₂ </scp> layered cathode material. International Journal of Energy Research, 2022, 46, 5119-5133.	2.2	2
549	Green and Highly-Efficient Microwave Synthesis Route for Sulfur/Carbon Composite for Li-S Battery. International Journal of Molecular Sciences, 2022, 23, 39.	1.8	6
550	Rechargeable Batteries: Regulating Electronic and Ionic Transports for High Electrochemical Performance. Advanced Materials Technologies, 2022, 7, .	3.0	8
551	Thermally encapsulated phenothiazine@MWCNT cathode for aqueous zinc ion battery. Materials Advances, 2022, 3, 4310-4321.	2.6	7
552	Superior performance enabled by supramolecular interactions in metalâ^'organic cathode: the power of weak bonds. Journal of Materials Chemistry A, 2022, 10, 19671-19679.	5.2	6
553	State of LiFePO₄ Li-Ion Battery Electrodes after 6533 Deep-Discharge Cycles Characterized by Combined Micro-XRF and Micro-XRD. ACS Applied Energy Materials, 2022, 5, 4358-4368.	2.5	2
554	Atomically Intimate Solid Electrolyte/Electrode Contact Capable of Surviving Long-Term Cycling with Repeated Phase Transitions. Nano Letters, 2022, 22, 3457-3464.	4.5	5
555	Search for New Anode Materials for High Performance Li-Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 20326-20348.	4.0	40
556	Access to Ru(IV)â€“Ru(V) and Ru(V)â€“Ru(VI) Redox in Layered Li₇RuO₆ via Intercalation Reactions. Chemistry of Materials, 2022, 34, 3724-3735.	3.2	3
557	Storing Mg Ions in Polymers: A Perspective. Macromolecular Rapid Communications, 2022, 43, e2200198.	2.0	2
558	High energy density aqueous rechargeable sodium-ion/sulfur batteries in â€˜water in saltâ€•electrolyte. Energy Storage Materials, 2022, 49, 390-400.	9.5	12
559	Improved electrochemical performance of silicon monoxide anode materials prompted by macroporous carbon. Journal of Porous Materials, 2022, 29, 1191-1198.	1.3	4
560	Study on topographic, electrochemical, and safety characteristics of lithiumâ€ion cells after longâ€term storage at abusiveâ€temperature environments. International Journal of Energy Research, 0, , .	2.2	2
561	An overview of the application of atomic layer deposition process for lithiumâ€ion based batteries. International Journal of Energy Research, 2022, 46, 10499-10521.	2.2	8

#	Article	IF	Citations
562	Electrolyte-free graphite electrode with enhanced interfacial conduction using Li+-conductive binder for high-performance all-solid-state batteries. Energy Storage Materials, 2022, 49, 481-492.	9.5	10
563	Operando analysis of electronic band structure in an all-solid-state thin-film battery. Communications Chemistry, 2022, 5, .	2.0	11
564	Effects of a Solid Solution Outer Layer of TiO₂ on the Surface and Electrochemical Properties of LiNi_{0.6}Co_{0.2}Mn_{0.2}O₂ Cathodes for Lithium-Ion Batteries through the Use of Thin-Film Electrodes. ACS Applied Energy Materials, 0, , .	2.5	6
565	Easy recovery of Li-ion cathode powders by the use of water-processable binders. Electrochimica Acta, 2022, 418, 140376.	2.6	11
566	Applying a numerical optimization to determine the entropic heat coefficient of a battery. Applied Thermal Engineering, 2022, 211, 118467.	3.0	4
567	Direct production of lithium nitrate from the primary lithium salt by electrodialysis metathesis. Journal of Membrane Science, 2022, 654, 120555.	4.1	11
568	Effects of soluble products decomposed from chelato-borate additives on formation of solid electrolyte interface layers. Journal of Power Sources, 2022, 535, 231451.	4.0	17
569	Solid state lithium metal batteries â€“ Issues and challenges at the lithium-solid electrolyte interface. Current Opinion in Solid State and Materials Science, 2022, 26, 100999.	5.6	29
570	Beneficial impact of incorporating spinel lithium manganate and samarium oxide into high performance positive materials through ultrasonic cavitation strategy. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 646, 128985.	2.3	3
573	Introducing 4sâ€“2p Orbital Hybridization to Stabilize Spinel Oxide Cathodes for Lithiumâ€Ion Batteries. Angewandte Chemie - International Edition, 2022, 61, .	7.2	26
574	Metal-Organic Frameworks (Mofs) and Their Derivative as Electrode Materials for Lithium-Ion Batteries. SSRN Electronic Journal, 0, , .	0.4	0
575	Quasi-anisotropic benefits in electrospun nickelâ€“cobaltâ€“manganese oxide nano-octahedron as anode for lithium-ion batteries. New Journal of Chemistry, 2022, 46, 9799-9810.	1.4	9
576	Metaphosphate-Bridged Interface Boosts High-Performance Lithium Storage. ACS Applied Materials & Interfaces, 2022, 14, 20896-20906.	4.0	0
577	Lithiumâ€Ion Battery Technology for Voltage Control of Perpendicular Magnetization. Advanced Functional Materials, 2022, 32, .	7.8	11
578	Lithium Trithiocarbonate as a Dualâ€Function Electrode Material for Highâ€Performance Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2022, 12, .	10.2	17
579	Active Interphase Enables Stable Performance for an Allâ€Phosphateâ€Based Composite Cathode in an Allâ€Solidâ€State Battery. Small, 2022, 18, e2200266.	5.2	7
580	Mechanical properties of cathode materials for lithium-ion batteries. Joule, 2022, 6, 984-1007.	11.7	79
581	Inventions, Innovations and New Technologies. Solar Compass, 2022, , 100012.	0.5	0

#	Article	IF	Citations
582	Battery energy storage systems and SWOT (strengths, weakness, opportunities, and threats) analysis of batteries in power transmission. Energy, 2022, 254, 123987.	4.5	74
583	Targeted Deposition in a Lithiophilic Silverâ€Modified 3D Cu Host for Lithiumâ€Metal Anodes. Energy and Environmental Materials, 2023, 6, .	7.3	11
584	å±‚çŠ¶æº§åŒ–ç‰©å™¨é²å£«è“±»ä¼¼ç‰©åœ¨é’¦»å€”µæ±çš„ç©¶è¿›å±•. Scientia Sinica Chimica, 2022, 52, .	2.2	0
585	Perspectives on<scp>Liâ€ion</scp>battery categories for electric vehicle applications: A review of state of the art. International Journal of Energy Research, 2022, 46, 19258-19268.	2.2	50
586	Understanding the Onset of Surface Degradation in LiNiO₂ Cathodes. ACS Applied Energy Materials, 2022, 5, 5730-5741.	2.5	10
587	Aqueous Binders for Cathodes: A Lodestar for Greener Lithium Ion Cells. Energy & Fuels, 2022, 36, 5063-5087.	2.5	26
588	Solid-state synthesized batteries get upset. Matter, 2022, 5, 1347-1349.	5.0	3
589	Uniform Zn²⁺ Flux Distribution Achieved by an Artificial Three-Dimensional Framework: The Enhanced Ion-Transfer Kinetics for Long-Life and Dendrite-Free Zn Anodes. ACS Applied Materials & Interfaces, 2022, 14, 23558-23569.	4.0	8
590	Combination of Li-rich layered-oxide with O2 cathodes for high-energy Li-ion/Li-O2 hybrid batteries. Applied Physics Letters, 2022, 120, .	1.5	5
591	Synthesis and MÃ¶ssbauer studies of tavorite-structured LiFePO4F. Journal of the Korean Physical Society, 0, , 1.	0.3	0
592	Fabrication of copper foil using cuprous sulfide superionic conductor under electric field. Materials Chemistry and Physics, 2022, 287, 126246.	2.0	0
593	Stabilizing the Anionic Redox in 4.6 VÂLiCoO₂ Cathode through Adjusting Oxygen Magnetic Moment. Advanced Functional Materials, 2022, 32, .	7.8	19
594	Introducing 4sâ€“2p Orbital Hybridization to Stabilize Spinel Oxide Cathodes for Lithiumâ€Ion Batteries. Angewandte Chemie, 2022, 134, .	1.6	12
595	Surface Stabilization with Fluorine of Layered Ultrahigh-Nickel Oxide Cathodes for Lithium-Ion Batteries. Chemistry of Materials, 2022, 34, 4514-4522.	3.2	9
596	Suppressing Electrode Crosstalk and Prolonging Cycle Life in Highâ€Voltage Li Ion Batteries: Pivotal Role of Fluorophosphates in Electrolytes. ChemElectroChem, 0, , .	1.7	8
597	Simulation of Bragg coherent diffraction imaging. Journal of Physics Communications, 2022, 6, 055003.	0.5	1
598	Biomass-Derived sustainable carbon materials in energy conversion and storage applications: Status and opportunities. A mini review. Electrochemistry Communications, 2022, 138, 107283.	2.3	29
599	Understanding the nucleation and growth of the degenerated surface structure of the layered transition metal oxide cathodes for lithium-ion batteries by operando Raman spectroscopy. Journal of Electroanalytical Chemistry, 2022, 915, 116340.	1.9	1

#	Article	IF	Citations
600	Heat generation and thermal runaway mechanisms induced by overcharging of aged lithium-ion battery. Applied Thermal Engineering, 2022, 212, 118565.	3.0	38
601	CNTs boosting superior cycling stability of ZnFe2O4/C nanoparticles as high-capacity anode materials of Li-ion batteries. Journal of Alloys and Compounds, 2022, 912, 165135.	2.8	8
602	One-step calcination reaction to synthesize Li2MnO3 coating layers for LiNi0.8Co0.1Mn0.1O2 to improve cycling performances under high-voltage for Li-ion batteries. Applied Surface Science, 2022, 595, 153479.	3.1	7
603	A self-purifying electrolyte enables high energy Li ion batteries. Energy and Environmental Science, 2022, 15, 3331-3342.	15.6	40
604	First-principles study on the electronic structure of LiCoO2 with intrinsic defects. Ionics, 2022, 28, 3139-3143.	1.2	4
605	Recent advancements in batteries and photo-batteries using metal halide perovskites. APL Materials, 2022, 10, .	2.2	17
606	Closed-loop cobalt recycling from spent lithium-ion batteries based on a deep eutectic solvent (DES) with easy solvent recovery. Journal of Energy Chemistry, 2022, 72, 532-538.	7.1	40
607	Evaluating the potential of graphene-like boron nitride as a promising cathode for Mg-ion batteries. Journal of Electroanalytical Chemistry, 2022, 917, 116413.	1.9	44
608	Prediction of SEI Formation in Allâ€Solidâ€State Batteries: Computational Insights from PCLâ€based Polymer Electrolyte Decomposition on Lithiumâ€Metal. Batteries and Supercaps, 2022, 5, .	2.4	11
609	Plasma-enabled synthesis and modification of advanced materials for electrochemical energy storage. Energy Storage Materials, 2022, 50, 161-185.	9.5	28
610	Improving LiNiO₂ cathode performance through particle design and optimization. Journal of Materials Chemistry A, 2022, 10, 12890-12899.	5.2	16
611	Impact of Structural Deformations on the Performance of Li-Ion Insertion Hosts. Chemistry of Materials, 2022, 34, 4809-4820.	3.2	4
612	Manganese-based layered oxides for electrochemical energy storage: a review of degradation mechanisms and engineering strategies at the atomic level. Journal of Materials Chemistry A, 2022, 10, 19231-19253.	5.2	14
614	Kinetic square scheme in oxygen-redox battery electrodes. Energy and Environmental Science, 2022, 15, 2591-2600.	15.6	21
615	Impact of Cationâ€“Ligand Interactions on the Permselectivity of Ligand-Functionalized Polymer Membranes in Single and Mixed Salt Systems. Macromolecules, 2022, 55, 4821-4831.	2.2	9
616	Solidâ€“Electrolyte Interphase of Molecular Crowding Electrolytes. Chemistry of Materials, 2022, 34, 5176-5183.	3.2	14
617	Dendrite-free alkali metal electrodeposition from contact-ion-pair state induced by mixing alkaline earth cation. Cell Reports Physical Science, 2022, 3, 100907.	2.8	4
618	Harnessing the volume expansion of metal selenide anode by composition engineering to achieve ultrastable sodium storage. Journal of Power Sources, 2022, 540, 231636.	4.0	3

#	Article	IF	Citations
619	Design of experiments applied to lithium-ion batteries: A literature review. Applied Energy, 2022, 320, 119305.	5.1	52
620	Removing the Intrinsic Nio Phase and Residual Lithium Compounds to Enhance the Electrochemical Performances of Nickel-Rich Materials. SSRN Electronic Journal, 0, , .	0.4	0
621	Unraveling the diffusion kinetics of honeycomb structured Na₂Ni₂TeO₆ as a high-potential and stable electrode for sodium-ion batteries. Journal of Materials Chemistry A, 2022, 10, 15460-15473.	5.2	18
622	Lithium-Free Batteries: Needs and Challenges. Energy & Fuels, 2022, 36, 6013-6026.	2.5	34
623	High entropy fluorides as conversion cathodes with tailorable electrochemical performance. Journal of Energy Chemistry, 2022, 72, 342-351.	7.1	14
624	Decreasing Deformation and Heat as Well as Intensifying Ionic Transport of Si Using a Negative Thermal Expansion Ceramic with High Ionic Conductivity. Industrial & Engineering Chemistry Research, 2022, 61, 7926-7938.	1.8	0
625	Exploring the practical applications of silicon anodes: a review of silicon-based composites for lithium-ion batteries. Ionics, 2022, 28, 3057-3077.	1.2	14
626	Atomicâ€Scale Design of Anode Materials for Alkali Metal (Li/Na/K)â€Ion Batteries: Progress and Perspectives. Advanced Energy Materials, 2022, 12, .	10.2	56
627	Energetic Aqueous Batteries. Advanced Energy Materials, 2022, 12, .	10.2	48
628	Protection of Cobalt-Free LiNiO₂ from Degradation with Localized Saturated Electrolytes in Lithium-Metal Batteries. ACS Energy Letters, 2022, 7, 2165-2172.	8.8	37
629	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, .	7.3	2
630	Free-standing ultrathick LiMn2O4@single-wall carbon nanotubes electrode with high areal capacity. Journal of Energy Chemistry, 2022, 73, 452-459.	7.1	7
631	Metalâ€“organic framework for dendrite-free anodes in aqueous rechargeable zinc batteries. Electrochimica Acta, 2022, 425, 140648.	2.6	17
632	Enhancing the Electrochemical Performance of Co-Less Ni-Rich Lini0.925co0.03mn0.045o2 Cathode Material Via Co-Modification with Li2b4o7 Coating and B3+ Doping. SSRN Electronic Journal, 0, , .	0.4	0
633	Controlled formation of carbon nanotubes incorporated ceramic composite granules by electrostatic integrated nano-assembly. Nanoscale, 2022, 14, 9669-9674.	2.8	4
634	Surface Roughness-Independent Homogeneous Lithium Plating in Synergetic Conditioned Electrolyte. ACS Energy Letters, 2022, 7, 2219-2227.	8.8	8
635	Current Insight into 3D Printing in Solidâ€State Lithiumâ€Ion Batteries: A Perspective. Batteries and Supercaps, 2022, 5, .	2.4	19
636	Nextâ€Generation Energy Harvesting and Storage Technologies for Robots Across All Scales. Advanced Intelligent Systems, 2023, 5, .	3.3	10

#	Article	IF	Citations
637	Effect of precursor structure transformation on synthesis and performance of LiNi0.5Co0.2Mn0.3O2 cathode material. Solid State Sciences, 2022, 131, 106954.	1.5	3
638	Engineering carbon nanosheets with hexagonal ordered conical macropores as high-performance sodium-ion battery anodes. Journal of Colloid and Interface Science, 2022, 625, 978-989.	5.0	6
639	Room-Temperature Electrochemical Fluoride (De)insertion into CsMnFeF₆. ACS Energy Letters, 2022, 7, 2340-2348.	8.8	3
640	Experimental study on the runaway behaviors of Panasonic 21,700 LiNi0.8Co0.15Al0.05O2 battery used in electric vehicle under thermal failure. Journal of Thermal Analysis and Calorimetry, 2022, 147, 12005-12018.	2.0	7
641	Quantitative ion exchange reactions to form Li2Vac2-2La2Ti3O9+ defect layered perovskites from H2La2Ti3O10 via solid acid/base reaction. Journal of Solid State Chemistry, 2022, 314, 123354.	1.4	1
642	Li₈MnO₆: A Novel Cathode Material with Only Anionic Redox. ACS Applied Materials & Interfaces, 2022, 14, 29832-29843.	4.0	2
643	Stable Sodium-Based Batteries with Advanced Electrolytes and Layered-Oxide Cathodes. ACS Applied Materials & Interfaces, 2022, 14, 28865-28872.	4.0	11
644	Effect of Cationic (Na+) and Anionic (Fâ˜) Co-Doping on the Structural and Electrochemical Properties of LiNi1/3Mn1/3Co1/3O2 Cathode Material for Lithium-Ion Batteries. International Journal of Molecular Sciences, 2022, 23, 6755.	1.8	5
645	Carbon-Coatings Improve Performance of Li-Ion Battery. Nanomaterials, 2022, 12, 1936.	1.9	16
646	Rapid 3D nondestructive imaging technology for batteries: Photoacoustic microscopy. Journal of Materials Research, 2022, 37, 3283-3296.	1.2	1
647	Hysteresis Induced by Incomplete Cationic Redox in Liâ€Rich 3dâ€Transitionâ€Metal Layered Oxides Cathodes. Advanced Science, 2022, 9, .	5.6	7
648	Electric vehicle battery pack micro-short circuit fault diagnosis based on charging voltage ranking evolution. Journal of Power Sources, 2022, 542, 231733.	4.0	17
649	V2O5 intercalated with polyaniline for improved kinetics in aqueous ammonium-ion batteries. Electrochimica Acta, 2022, 425, 140751.	2.6	19
650	Catalytic and pseudocapacitive energy storage performance of metal (Co, Ni, Cu and Mn) ferrite nanostructures and nanocomposites. Progress in Materials Science, 2022, 130, 100995.	16.0	25
651	Downstream recovery of Li and value-added metals (Ni, Co, and Mn) from leach liquor of spent lithium-ion batteries using a membrane-integrated hybrid system. Chemical Engineering Journal, 2022, 447, 137507.	6.6	27
652	Construction of a ternary MoO2/Ni/C hybrid towards lithium-ion batteries as high-performance electrode. New Journal of Chemistry, 0, , .	1.4	0
653	Revealing the Cathode Electrolyte Interphase on Li- and Mn-Rich Materials by In-Situ Electrochemical Atomic Force. SSRN Electronic Journal, 0, , .	0.4	0
654	New approaches to high-energy-density cathode and anode architectures for lithium-sulfur batteries. , 2022, , 353-439.		0

#	Article	IF	Citations
655	Development of a System for Recycling Used Batteries and Lead-Containing Batteries: Assessment of the Economic Effect with Minimising Damage to the Environment. Scientific Horizons, 2022, 25, 98-104.	0.2	1
656	Investigation of Water-Washing Effect on Electrochemical Properties of Ni-Rich NCA Cathode Material for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2022, 169, 060543.	1.3	2
657	Galliumâ€based liquid metals for lithiumâ€ion batteries. , 2022, 1, 354-372.		39
658	John Goodenoughâ€™s 100th Birthday Celebration: His Impact on Science and Humanity. ACS Energy Letters, 2022, 7, 2404-2406.	8.8	2
659	Alâ€Doping Driven Suppression of Capacity and Voltage Fadings in 4dâ€Element Containing Liâ€Ionâ€Battery Cathode Materials: Machine Learning and Density Functional Theory. Advanced Energy Materials, 2022, 12, .	10.2	42
660	Effect of charging protocols on electrochemical performance and failure mechanism of commercial level Ni-rich NMC811 thick electrode. Electrochemistry Communications, 2022, 139, 107309.	2.3	7
661	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.	2.5	12
662	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, .	7.8	19
663	Chemical synthesis and materials discovery. , 2022, 1, 514-520.		15
664	Ultrathin Selfâ€Standing Covalent Organic Frameworks toward Highlyâ€Efficient Nanofluidic Osmotic Energy Generator. Advanced Functional Materials, 2022, 32, .	7.8	25
665	<scp>Highâ€Energy</scp> Lithiumâ€ion Batteries: Recent Progress and a Promising Future in Applications. Energy and Environmental Materials, 2023, 6, .	7.3	77
666	Comprehensive Study of Sodium Copper Hexacyanoferrate, as a Sodium-Rich Low-Cost Positive Electrode for Sodium-Ion Batteries. Energy & Fuels, 2022, 36, 7816-7828.	2.5	4
667	Anodeâ€Free Lithiumâ€“Sulfur Cells Enabled by Rationally Tuning Lithium Polysulfide Molecules. Angewandte Chemie, 2022, 134, .	1.6	5
668	Hierarchical Doping Engineering with Active/Inert Dual Elements Stabilizes LiCoO₂ to 4.6ÂV. Advanced Energy Materials, 2022, 12, .	10.2	39
669	Investigation and Design of High-Loading Sulfur Cathodes with a High-Performance Polysulfide Adsorbent for Electrochemically Stable Lithiumâ€“Sulfur Batteries. ACS Sustainable Chemistry and Engineering, 2022, 10, 9254-9264.	3.2	20
670	Surface-stabilization of LMR-NCM by Washing with Aqueous Buffers to Reduce Gassing and Improve Cycle-Life. Journal of the Electrochemical Society, 2022, 169, 070516.	1.3	7
671	Recent advances in bifunctional catalysts for zinc-air batteries: Synthesis and potential mechanisms. Science China Technological Sciences, 2022, 65, 2221-2245.	2.0	10
672	Boosting of reversible capacity delivered at a low voltage below 0.5ÂV in mildly expanded graphitized needle coke anode for a high-energy lithium ion battery. Journal of Energy Chemistry, 2022, 74, 100-110.	7.1	12

#	Article	IF	Citations
673	Boosting ultrafast and durable sodium storage of hard carbon electrode with graphite nanoribbons. Carbon, 2022, 198, 278-288.	5.4	10
674	Nitrogen-doped reduced graphene oxide incorporated Ni2O3-Co3O4@MoS2 hollow nanocubes for high-performance energy storage devices. Journal of Alloys and Compounds, 2022, 922, 166131.	2.8	12
675	Electrochemical Protocols to Assess the Effects of Dissolved Transition Metal in Graphite/LiNiO₂ Cells Performance. Journal of the Electrochemical Society, 2022, 169, 070506.	1.3	6
676	Anodeâ€Free Lithiumâ€“Sulfur Cells Enabled by Rationally Tuning Lithium Polysulfide Molecules. Angewandte Chemie - International Edition, 2022, 61, .	7.2	13
677	Prepare and optimize NASICON-type Na4MnAl(PO4)3 as low cost cathode for sodium ion batteries. Surfaces and Interfaces, 2022, 32, 102151.	1.5	7
678	Synthesis of Graphene oxide@silicon Naocomposites and Its high-Performance as Lithium Ion Battery Anodes. International Journal of Electrochemical Science, 0, , ArticleID:220854.	0.5	0
679	Revealing the cathode electrolyte interphase on Li- and Mn-rich materials by in-situ electrochemical atomic force microscopy. Applied Surface Science, 2022, 600, 154119.	3.1	4
680	Visualization of concentration polarization in thick electrodes. Energy Storage Materials, 2022, 51, 476-485.	9.5	25
681	Hierarchical Na₃V₂(PO₄)₂F₃ Microsphere Cathodes for High-Temperature Li-Ion Battery Application. ACS Omega, 2022, 7, 26523-26530.	1.6	8
682	Solid Li- and Na-Ion Electrolytes for Next Generation Rechargeable Batteries. Chemistry of Materials, 2022, 34, 6637-6658.	3.2	24
683	Study the thermal management of Li-ion batteries using looped heat pipes with different nanofluids. Case Studies in Thermal Engineering, 2022, 37, 102227.	2.8	30
684	Toward High Energy Density Aqueous Zincâ€Ion Batteries: Recent Progress and Future Perspectives. Batteries and Supercaps, 2022, 5, .	2.4	7
685	Insights of cationic diffusion in nickel-based honeycomb layered tellurates using molecular dynamics simulation. Solid State Ionics, 2022, 383, 115982.	1.3	0
686	Double-shell-structured Si@Al2O3@C nanoparticles as high-performance anode materials for lithium-ion batteries. Journal of Alloys and Compounds, 2022, 923, 166428.	2.8	8
687	Metal-organic frameworks (MOFs) and their derivative as electrode materials for lithium-ion batteries. Coordination Chemistry Reviews, 2022, 470, 214715.	9.5	50
688	Progress in the development of solid-state electrolytes for reversible room-temperature sodiumâ€“sulfur batteries. Materials Advances, 2022, 3, 6415-6440.	2.6	26
689	Exploring the Insertion Properties of Mg2+ in H2v3o8 as a Function of the Water Content in the Organic Electrolyte. SSRN Electronic Journal, 0, , .	0.4	0
690	Combining Offline and Online Machine Learning to Estimate State of Health of Lithium-Ion Batteries. , 2022, , .		0

#	Article	IF	Citations
691	Physical Properties and Structural Stability of Cobalt Pyrovanadate Co₂V₂O₇ under High-Pressure Conditions. Journal of Physical Chemistry C, 2022, 126, 13416-13426.	1.5	5
692	Environmental Impact Assessment of Solid Polymer Electrolytes for Solidâ€State Lithium Batteries. Advanced Energy and Sustainability Research, 2022, 3, .	2.8	4
693	Advances in Intelligent Regeneration of Cathode Materials for Sustainable Lithiumâ€Ion Batteries. Advanced Energy Materials, 2022, 12, .	10.2	34
694	Gas Generation in Lithium Cells with High-Nickel Cathodes and Localized High-Concentration Electrolytes. ACS Energy Letters, 2022, 7, 2634-2640.	8.8	29
695	Structure/Interface Coupling Effect for Highâ€Voltage LiCoO₂ Cathodes. Advanced Materials, 2022, 34, .	11.1	27
696	The discovery of cathode materials for lithiumâ€ion batteries from the view of interdisciplinarity. , 2022, 1, 323-329.		68
697	Deep Unsupervised Domain Adaptation with Time Series Sensor Data: A Survey. Sensors, 2022, 22, 5507.	2.1	9
698	Extraction of lithium from the simulated pyrometallurgical slag of spent lithium-ion batteries by binary eutectic molten carbonates. International Journal of Minerals, Metallurgy and Materials, 2022, 29, 1715-1721.	2.4	9
699	An empirical model for high energy density lithium-(ion) batteries with ultra-thick electrodes. Tungsten, 2024, 6, 230-237.	2.0	3
700	Controlled polymerization for lithium-ion batteries. Energy Storage Materials, 2022, 52, 598-636.	9.5	4
701	LiI doping of mixed-cation mixed-halide perovskite solar cells: Defect passivation, controlled crystallization and transient ionic response. Materials Today Physics, 2022, 27, 100822.	2.9	2
702	Isolating Contiguous Fe Atoms by Forming a Coâ€“Fe Intermetallic Catalyst from Spent Lithium-Ion Batteries to Regulate Activity for Zincâ€“Air Batteries. ACS Nano, 2022, 16, 13223-13231.	7.3	38
703	Reaction-sintered LAGP solid electrolytes with MoS2 coating for improved stability with Li metal. Ceramics International, 2022, 48, 34828-34836.	2.3	3
704	Exploring the application of AlN graphyne in calcium ion batteries. International Journal of Hydrogen Energy, 2022, 47, 31665-31672.	3.8	3
705	Surface Reduction Stabilizes the Single-Crystalline Ni-Rich Layered Cathode for Li-Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 38795-38806.	4.0	1
706	Insights into the Electrochemical Performance of 1.8 Ah Pouch and 18650 Cylindrical NMC:LFP | Si:C Blend Li-ion Cells. Batteries, 2022, 8, 97.	2.1	2
707	Highly Sensitive Detection and Mapping of Incipient and Steady-State Oxygen Evolution from Operating Li-Ion Battery Cathodes via Scanning Electrochemical Microscopy. Journal of the Electrochemical Society, 2022, 169, 086501.	1.3	9
708	Uncovering the Solvation Structure of LiPF₆â€Based Localized Saturated Electrolytes and Their Effect on LiNiO₂â€Based Lithiumâ€Metal Batteries. Advanced Energy Materials, 2022, 12, .	10.2	34

#	Article	IF	Citations
709	Tuning the Electronic, Ion Transport, and Stability Properties of Li-rich Manganese-based Oxide Materials with Oxide Perovskite Coatings: A First-Principles Computational Study. ACS Applied Materials & Interfaces, 2022, 14, 37009-37018.	4.0	2
710	Addressing Mn Dissolution in Highâ€Voltage LiNi_{0.5}Mn_{1.5}O₄ Cathodes via Interface Phase Modulation. Advanced Functional Materials, 2022, 32, .	7.8	14
711	Remark on Conductivity Measurements: The Special Case of Single-Ion Conducting Electrolytes on Blocking Electrodes. ACS Applied Energy Materials, 0, , .	2.5	2
712	Synergistic Effect of Dual-Anion Additives Promotes the Fast Dynamics and High-Voltage Performance of Ni-Rich Lithium-Ion Batteries by Regulating the Electrode/Electrolyte Interface. ACS Applied Materials & Interfaces, 2022, 14, 39927-39938.	4.0	3
713	Highly Stretchable and Elastic Polymer Electrolytes with High Ionic Conductivity and <scp>Liâ€Ion</scp> Transference Number for <scp>Highâ€Rate</scp> Lithium Batteries. Chinese Journal of Chemistry, 2022, 40, 2559-2567.	2.6	6
714	Electrochemical characterization of TiNb₂O₇ as anode material synthesized using microwaveâ€assisted microemulsion route. Journal of the American Ceramic Society, 2022, 105, 7446-7454.	1.9	3
715	Study on annealing treatment of spinel <scp> LiNi ₀ </scp> _. <scp> ₅ Mn ₁ </scp> _. <scp> ₅ O ₄ </scp> as cathode materials for <scp>highâ€voltage</scp> lithiumâ€ion batteries. International Journal of Energy Research, 2022, 46, 18495-18510.	2.2	8
716	Electrochemical Characterization and Microstructure Evolution of Ni-Rich Layered Cathode Materials by Niobium Coating/Substitution. Chemistry of Materials, 2022, 34, 7858-7866.	3.2	30
717	Improvement in lithium-ion transport performance of cathodes by PEGDA-based solid-state electrolyte. Frontiers in Energy Research, 0, 10, .	1.2	0
718	Thiophene Based Selfâ€Doped Conducting Polymers as Cathode for Aqueous Zincâ€Ion Battery. Batteries and Supercaps, 2022, 5, .	2.4	7
719	In Situ Inorganic-Rich Electrodeâ€“Electrolyte Interphases for Safer 4.5 V Gr||NCM811 Batteries Enabled by an Ethylene Carbonate-Free Electrolyte. ACS Applied Energy Materials, 2022, 5, 11748-11755.	2.5	1
720	Can Cobalt Be Eliminated from Lithium-Ion Batteries?. ACS Energy Letters, 2022, 7, 3058-3063.	8.8	42
721	Efficient Control of the Shuttle Effect in Sodiumâ€“Sulfur Batteries with Functionalized Nanoporous Graphenes. ACS Applied Nano Materials, 0, , .	2.4	5
722	Microstructural Modeling and Simulation of a Carbon Black-Based Conductive Polymerâ”€A Template for the Virtual Design of a Composite Material. ACS Omega, 2022, 7, 28820-28830.	1.6	4
723	A Zincâ€Ion Batteryâ€Type Selfâ€Powered Pressure Sensor with Long Service Life. Advanced Materials, 2022, 34, .	11.1	31
724	Spinel LiMn2O4 with Remarkable Electrochemical Performances by Synergistic Enhancement of Double-Cation (Sm3+, Mo6+) Doping for Li-Ion Batteries. Jom, 2022, 74, 4672-4681.	0.9	3
725	Tug-of-War in the Selection of Materials for Battery Technologies. Batteries, 2022, 8, 105.	2.1	7
726	Diffusional lithium trapping as a failure mechanism of aluminum foil anodes in lithium-ion batteries. Journal of Power Sources, 2022, 546, 231973.	4.0	15

#	Article	IF	Citations
727	The surface double-coupling on single-crystal LiNi0.8Co0.1Mn0.1O2 for inhibiting the formation of intragranular cracks and oxygen vacancies. Energy Storage Materials, 2022, 52, 534-546.	9.5	83
728	Enhanced electrochemical performance of O3-type NaNi0.5Mn0.3Co0.2O2 cathodes for sodium-ion batteries via Al-doping. Journal of Alloys and Compounds, 2022, 924, 166444.	2.8	5
729	Recent progress of electrolytes and electrocatalysts in neutral aqueous zinc-air batteries. Chemical Engineering Journal, 2023, 451, 138608.	6.6	34
730	Highly Durable and Ultrafast Cycling of Dualâ€ion Batteries via In Situ Construction of Cathodeâ€“Electrolyte Interphase. Advanced Energy Materials, 2022, 12, .	10.2	18
731	Step-by-step desolvation enables high-rate and ultra-stable sodium storage in hard carbon anodes. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	35
732	Simulating key properties of lithium-ion batteries with a fault-tolerant quantum computer. Physical Review A, 2022, 106, .	1.0	12
733	Two-Dimensional Black Phosphorus: Preparation, Passivation and Lithium-Ion Battery Applications. Molecules, 2022, 27, 5845.	1.7	4
734	Enhancing the electrochemical performance of Co-less Ni-rich LiNi0.925Co0.03Mn0.045O2 cathode material via Co-modification with Li2B4O7 coating and B3+ doping. Journal of Power Sources, 2022, 548, 232092.	4.0	9
735	Electrode design to mitigate the kinetic issue of cathodes in high energy lithium-ion batteries. Journal of Power Sources, 2022, 547, 231916.	4.0	6
736	A new surface phase of Al2Ti7O15 to enhance the electronic conductivity and interfacial stability of LiCoO2 cathode materials. Applied Surface Science, 2022, 606, 154776.	3.1	3
737	Templated formation of Mn2O3 derived from metal-organic frameworks with different organic ligands as anode materials for enhanced lithium-ion storage. Journal of Alloys and Compounds, 2022, 927, 166977.	2.8	7
738	Repurposing metal containing wastes and mass-produced materials as electrocatalysts for water electrolysis. Sustainable Energy and Fuels, 2022, 6, 4829-4844.	2.5	7
739	An intercalationâ€“conversion hybrid mechanism enables covalent organic frameworks with superior Li-ion storage. Journal of Materials Chemistry A, 2022, 10, 20866-20873.	5.2	6
740	Tuning the structural stability and electrochemical properties in graphene anode materials by B doping: a first-principles study. Physical Chemistry Chemical Physics, 2022, 24, 21452-21460.	1.3	7
741	Electrodes. , 2022, , 137-146.		0
742	Inhibition of Gas-Evolved Electrolyte Decomposition in Cylindrical Li-Ion Battery Cells of Ni-Rich Layered Oxide with a Dry Coating Process Without Thermal Annealing. SSRN Electronic Journal, 0, , .	0.4	0
743	Impact of Ni Content on the Electrochemical Performance of the Co-Free, Li and Mn-Rich (Lmr) Layered Cathode Materials. SSRN Electronic Journal, 0, , .	0.4	0
744	Conventional and less conventional solution-based synthesis of battery materials: Cathodes, anodes and electrolytes. , 2022, , .		0

#	Article	IF	Citations
745	Enhanced lifetime of the zincâ€“iodine batteries using hydrocarbon cation-exchange polymer-protected zinc anodes. Energy Advances, 2022, 1, 606-612.	1.4	4
746	Silicon/Needle Coke Composites as Efficient Anodes for Lithium Ion Batteries. MATEC Web of Conferences, 2022, 363, 01022.	0.1	0
747	Advanced layered oxide cathodes for sodium/potassium-ion batteries: Development, challenges and prospects. Chemical Engineering Journal, 2023, 452, 139438.	6.6	57
748	Design and mechanism exploration of single-crystalline NCM811 materials with superior comprehensive performance for Li-ion batteries. Chemical Engineering Journal, 2023, 452, 139431.	6.6	21
749	Polyacrylonitrile Porous Membrane-Based Gel Polymer Electrolyte by In Situ Free-Radical Polymerization for Stable Li Metal Batteries. ACS Applied Materials & Interfaces, 2022, 14, 41022-41036.	4.0	21
750	Hollow Na0.62K0.05Mn0.7Ni0.2Co0.1O2 polyhedra with exposed stable {001} facets and K riveting for sodium-ion batteries. Science China Materials, 2023, 66, 79-87.	3.5	44
751	Building a Selfâ€Adaptive Protective Layer on Niâ€Rich Layered Cathodes to Enhance the Cycle Stability of Lithiumâ€Ion Batteries. Advanced Materials, 2022, 34, .	11.1	31
752	Synthesis and Theoretical Modeling of Suitable Co-precipitation Conditions for Producing NMC111 Cathode Material for Lithium-Ion Batteries. Energy & Fuels, 2022, 36, 12261-12270.	2.5	8
753	A FIB-SEM Based Correlative Methodology for X-Ray Nanotomography and Secondary Ion Mass Spectrometry: An Application Example in Lithium Batteries Research. Microscopy and Microanalysis, 2022, 28, 1890-1895.	0.2	8
754	Bulk-phase and interface stability strategies of manganese oxide cathodes for aqueous Zn-MnOx batteries. Frontiers in Chemistry, 0, 10, .	1.8	1
755	Battery materials for electric vehicle â€“ A comprehensive review. Materials Today: Proceedings, 2022, , .	0.9	0
756	Stable cycling of practical high-voltage LiCoO2 pouch cell via electrolyte modification. Nano Research, 2023, 16, 3864-3871.	5.8	3
757	Accelerating Charge/Discharge of Lithium Iron Phosphate by Charge Mediation Reaction of Poly(dimethylfluoflavin-substituted norbornene). Chemistry Letters, 2022, 51, 1040-1043.	0.7	2
758	Alleviating Anisotropic Volume Variation at Comparable Li Utilization during Cycling of Ni-Rich, Co-Free Layered Oxide Cathode Materials. Journal of Physical Chemistry C, 2022, 126, 16952-16964.	1.5	10
759	Redox Evolution of Li-Rich Layered Cathode Materials. Batteries, 2022, 8, 132.	2.1	10
760	In Situ Co-modification Strategy for Achieving High-Capacity and Durable Ni-Rich Cathodes for High-Temperature Li-Ion Batteries. Energy & Fuels, 2022, 36, 12319-12326.	2.5	5
761	Two-Dimensional Imide-Based Covalent Organic Frameworks with Tailored Pore Functionality as Separators for High-Performance Liâ€“S Batteries. ACS Applied Materials & Interfaces, 2022, 14, 42018-42029.	4.0	15
762	Research Progress of Anode-Free Lithium Metal Batteries. Crystals, 2022, 12, 1241.	1.0	6

#	Article	IF	Citations
763	Unlocking Stable Multiâ€Electron Cycling in NMC811 Thinâ€Films between 1.5 â€“ 4.7 V. Advanced Energy Materials, 2022, 12, .	10.2	12
764	Enhanced interfacial and structural stability of Ni-rich LiNi0.96Mg0.02Ti0.02O2 cathode using a CeO2-coating technique. Ionics, 0, , .	1.2	0
765	High-voltage LiCoO2 cathodes for high-energy-density lithium-ion battery. Rare Metals, 2022, 41, 3946-3956.	3.6	31
766	First Principles Calculations of the Optical Response of LiNiO2. Condensed Matter, 2022, 7, 54.	0.8	3
767	Scalable Dry-Pressed Electrodes Based on Holey Graphene. Accounts of Chemical Research, 2022, 55, 3020-3031.	7.6	11
768	Facile Electroless Plating Method to Fabricate a Nickelâ€“Phosphorus-Modified Copper Current Collector for a Lean Lithium-Metal Anode. ACS Applied Materials & Interfaces, 2022, 14, 45433-45443.	4.0	9
769	Recent progress in synthesis and surface modification of nickel-rich layered oxide cathode materials for lithium-ion batteries. International Journal of Extreme Manufacturing, 2022, 4, 042004.	6.3	16
770	Designing photocured macromolecular matrices for stable potassium batteries. Sustainable Materials and Technologies, 2022, 34, e00504.	1.7	11
771	Anion doping in LiCoO2 cathode materials for Li-ion batteries: a first-principles study. Journal of Solid State Electrochemistry, 2022, 26, 2743-2748.	1.2	2
772	Camphene-Assisted Fabrication of Free-Standing Lithium-Ion Battery Electrode Composites. ACS Applied Materials & Interfaces, 2022, 14, 45240-45253.	4.0	4
773	Compositionally complex doping for zero-strain zero-cobalt layered cathodes. Nature, 2022, 610, 67-73.	13.7	176
774	Exploring the insertion properties of Mg2+ in H2V3O8 as a function of the water content in the organic electrolyte. Electrochimica Acta, 2022, 434, 141294.	2.6	3
775	¹⁷O NMR Spectroscopy in Lithium-Ion Battery Cathode Materials: Challenges and Interpretation. Journal of the American Chemical Society, 2022, 144, 18714-18729.	6.6	6
776	Understanding the role of Co in the Ni-rich cathode materials for Li-ion batteries. Ionics, 2022, 28, 5415-5419.	1.2	3
777	Real-space measurement of orbital electron populations for Li1-xCoO2. Nature Communications, 2022, 13, .	5.8	8
778	Threeâ€Dimensional Holey Graphene Enwrapped Li₃V₂(PO₄)₃/Nâ€Doped Carbon Cathode for Highâ€Rate and Longâ€Life Liâ€Ion Batteries. ChemSusChem, 2022, 15, .	3.6	4
779	Realizing High-Performance Lithium Storage by Fabricating FeTiO₃ Nanoparticle-Impregnated Multichannel Carbon Nanofibers with Promoted Reaction Kinetics. ACS Applied Materials & Interfaces, 2022, 14, 46513-46522.	4.0	2
780	Improved Electrochemical Performance of NTs-WS₂@C Nanocomposites for Lithium-Ion and Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 46386-46400.	4.0	11

#	Article	IF	Citations
781	Strategies for formulation optimization of composite positive electrodes for lithium ion batteries based on layered oxide, spinel, and olivine-type active materials. Journal of Power Sources, 2022, 551, 232179.	4.0	5
782	Inhibition of Gas-evolved electrolyte decomposition in cylindrical Li-ion battery cells of Ni-rich layered oxide with a dry coating process without post thermal annealing. Journal of Power Sources, 2022, 550, 232150.	4.0	11
783	Perspectives on strategies and techniques for building robust thick electrodes for lithium-ion batteries. Journal of Power Sources, 2022, 551, 232176.	4.0	19
784	5D total scattering computed tomography reveals the full reaction mechanism of a bismuth vanadate lithium ion battery anode. Physical Chemistry Chemical Physics, 2022, 24, 27075-27085.	1.3	3
785	Introduction: What is inorganic electrochemistry?. , 2022, , .		0
786	Development of polyanionic sodium-ion battery insertion materials. , 2022, , .		0
787	Effective separation of LiNi_{0.5}Co_{0.2}Mn_{0.3}O₂cathode material and Al foilviadigestion of PVDF enabling a closed-loop recycle. Journal of Materials Chemistry A, 2022, 10, 23905-23914.	5.2	9
788	Battery materials. , 2023, , 308-363.		0
789	Prospective Cathode Materials for All-Solid-State Batteries. Advances in Material Research and Technology, 2022, , 83-125.	0.3	0
790	Effect of argon sputtering pressure on the electrochemical performance of LiFePO4 cathode. Journal of the European Ceramic Society, 2022, , .	2.8	0
791	Improving the electrochemical properties of the Li-rich cathode material 0.5Li2MnO3Â·0.5LiNi1/3Co1/3Mn1/3O2 by coating the bi-functional amorphous LiNbO3. Journal of Materials Research, 2022, 37, 3831-3841.	1.2	1
792	Impact of Carbon Binder Domain on the Performance of Lithium-metal Batteries. Journal of the Electrochemical Society, 2022, 169, 100550.	1.3	3
794	Î±-graphyne as a promising anode material for Na-ion batteries: a first-principles study. Nanotechnology, 2023, 34, 045404.	1.3	5
795	Examining the Benefits of Using Boron Compounds in Lithium Batteries: A Comprehensive Review of Literature. Batteries, 2022, 8, 187.	2.1	7
796	Experimental and numerical investigation on effects of thickness of NCM622 cathode in Li-ion batteries for high energy and power density. Energy, 2023, 263, 125801.	4.5	6
797	A Dualâ€Phase Electrolyte for Highâ€Energy Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2022, 12, .	10.2	8
799	Rational design of thermally stable polymorphic layered cathode materials for next generation lithium rechargeable batteries. Materials Today, 2022, 61, 91-103.	8.3	16
800	A High-Rate, Durable Cathode for Sodium-Ion Batteries: Sb-Doped O3-Type Ni/Mn-Based Layered Oxides. ACS Nano, 2022, 16, 18058-18070.	7.3	38

#	Article	IF	Citations
801	A Nearly Zero-Strain Li-Rich Rock-Salt Oxide with Multielectron Redox Reactions as a Cathode for Li-Ion Batteries. Chemistry of Materials, 2022, 34, 9711-9721.	3.2	7
802	Unraveling the Role of Composite Li₃PO₄/ZrO₂ Coatings Prepared by Dry Milling on High Voltage Spinel Cathodes for Lithium-Ion Batteries: Insights into Lattice Strain, Thermal Behavior, Material Compatibility, and Electrochemical Performance. ACS Applied Energy Materials, 2022, 5, 14335-14352.	2.5	2
803	Tuning Co/O Redox Chemistry via Fermi Level Regulation for Stable High-Voltage LiCoO₂. ACS Energy Letters, 2022, 7, 4185-4189.	8.8	8
804	Size controllable single-crystalline Ni-rich cathodes for high-energy lithium-ion batteries. National Science Review, 2023, 10, .	4.6	26
805	Alkali metal Na+ doped LiNi0.8Co0.1Mn0.1O2 cathode material with a stable structure and high performance for lithium-ion batteries. Journal of Materials Science, 2022, 57, 19892-19901.	1.7	2
806	Enabling Extreme Fastâ€Charging: Challenges at the Cathode and Mitigation Strategies. Advanced Energy Materials, 2022, 12, .	10.2	17
807	Modifying the Network Structures of High Energy Anodes for Lithiumâ€Ion Batteries through Intensive Dry Mixing. Energy Technology, 2023, 11, .	1.8	3
808	Improving electrochemical properties of LiNi0.8Mn0.1Co0.1O2 cathode materials for lithium ion batteries by controlling calcination gas atmosphere. Solid State Ionics, 2022, 386, 116031.	1.3	2
809	Suppressing the Mn dissolution in LiMn2O4 positive materials toward long-life lithium ion battery through Gd2O3 surface modification. Ionics, 2023, 29, 43-50.	1.2	2
810	First-principles study on selenium-doped Li10GeP2S12 solid electrolyte: Effects of doping on moisture stability and Li-ion transport properties. Materials Today Chemistry, 2022, 26, 101223.	1.7	3
811	Metal-organic framework-based catalysts for lithium-sulfur batteries. Coordination Chemistry Reviews, 2023, 475, 214879.	9.5	32
812	Enabling rapid pseudocapacitive multi-electron reactions by heterostructure engineering of vanadium oxide for high-energy and high-power lithium storage. Energy and Environmental Science, 2023, 16, 222-230.	15.6	24
813	Recycling of spent lithium-iron phosphate batteries: toward closing the loop. Materials and Manufacturing Processes, 2023, 38, 135-150.	2.7	5
814	Single-Crystal-like Durable LiNiO₂ Positive Electrode Materials for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 52766-52778.	4.0	5
815	Reducing Intrinsic Drawbacks of Ni-rich Layered Oxide Cathode Materials with a Dry Coating Concept of Quasi-solid Nanomaterials towards High-performance Cylindrical Li-ion Batteries. Journal of the Electrochemical Society, 2022, 169, 110532.	1.3	2
816	Self-supervised learning of materials concepts from crystal structures via deep neural networks. Machine Learning: Science and Technology, 2022, 3, 045034.	2.4	7
817	Low-Cost and Scalable Synthesis of High-Purity Li₂S for Sulfide Solid Electrolyte. ACS Sustainable Chemistry and Engineering, 2022, 10, 15365-15371.	3.2	6
818	Cluster-type lithium polysulfides regulator for high performance lithium-sulfur batteries. Electrochimica Acta, 2023, 439, 141539.	2.6	1

#	Article	IF	Citations
819	Phase Transitions and Physical Properties of the Mixed Valence Iron Phosphate Fe3(PO3OH)4(H2O)4. Materials, 2022, 15, 8059.	1.3	0
820	Effects of the preheating temperature on flame-assisted spray pyrolysis of nickel-rich cathode materials. Proceedings of the Combustion Institute, 2022, , .	2.4	0
821	Highly Efficient Organosulfur and Lithiumâ€Metal Hosts Enabled by C@Fe3N Sponge. Angewandte Chemie, 0, , .	1.6	0
822	Amorphous iron fluorosulfate as a high-capacity cathode utilizing combined intercalation and conversion reactions with unexpectedly high reversibility. Nature Energy, 2023, 8, 30-39.	19.8	18
823	Highly Efficient Organosulfur and Lithiumâ€Metal Hosts Enabled by C@Fe₃N Sponge. Angewandte Chemie - International Edition, 2023, 62, .	7.2	20
824	Ultrafast Nonâ€Equilibrium Synthesis of Cathode Materials for Liâ€Ion Batteries. Advanced Materials, 2023, 35, .	11.1	32
825	Facile Synthesis of O3-Type NaNi_{0.5}Mn_{0.5}O₂ Single Crystals with Improved Performance in Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 52729-52737.	4.0	14
826	Lithiophilic Nanowire Guided Li Deposition in Li Metal Batteries. Small, 2023, 19, .	5.2	13
827	Lithium-Ion Batteries under Low-Temperature Environment: Challenges and Prospects. Materials, 2022, 15, 8166.	1.3	11
828	Oxide Cathodes: Functions, Instabilities, Self Healing, and Degradation Mitigations. Chemical Reviews, 2023, 123, 811-833.	23.0	37
829	Surface-controlled sodium-ion storage mechanism of Li4Ti5O12 anode. Energy Storage Materials, 2023, 54, 724-731.	9.5	13
830	Preâ€Deoxidation of Layered Niâ€Rich Cathodes to Construct a Stable Interface with Electrolyte for Long Cycling Life. Advanced Functional Materials, 2023, 33, .	7.8	5
831	Advances in Fine Structure Optimizations of Layered Transitionâ€Metal Oxide Cathodes for Potassiumâ€Ion Batteries. Advanced Energy Materials, 2023, 13, .	10.2	16
832	Improved electrochemical performance of SBA-15 based SiO2 anodes with N-doping porous carbon. Journal of Electroanalytical Chemistry, 2023, 928, 117019.	1.9	3
833	Electrochemical methods contribute to the recycling and regeneration path of lithium-ion batteries. Energy Storage Materials, 2023, 55, 606-630.	9.5	20
834	Reserve lithium-ion batteries: Deciphering in situ lithiation of lithium-ion free vanadium pentoxide cathode with graphitic anode. Carbon, 2023, 203, 561-570.	5.4	13
835	Origin of over-cycling tolerance achieved by metal phosphate coating for transition metal oxide lithium-ion batteries. Solid State Ionics, 2023, 389, 116105.	1.3	0
836	Na2Mn(CO3)2: A carbonate based prototype cathode material for Na-ion batteries with high rate capability â€" An ab-initio study. Electrochimica Acta, 2023, 439, 141687.	2.6	1

#	Article	IF	Citations
837	Understanding the active formation of a cathodeâ€“electrolyte interphase (CEI) layer with energy level band bending for lithium-ion batteries. Journal of Materials Chemistry A, 2022, 11, 221-231.	5.2	6
838	High-performance aramid electrodes for high-rate and long cycle-life organic Li-ion batteries. Journal of Materials Chemistry A, 2023, 11, 569-578.	5.2	3
839	Hybrid solid electrolyte-liquid electrolyte systems for (almost) solid-state batteries: Why, how, and where to?. Journal of Materials Chemistry A, 2023, 11, 1083-1097.	5.2	13
840	Electrode/electrolyte additives for practical sodium-ion batteries: a mini review. Inorganic Chemistry Frontiers, 2022, 10, 37-48.	3.0	11
841	State of health estimation of lithium-ion batteries with a temporal convolutional neural network using partial load profiles. Applied Energy, 2023, 329, 120307.	5.1	26
842	Sodium trithiocarbonate cathode for high-performance sodiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2022, 11, 130-140.	5.2	3
843	Rapid construction of surface CuO-rich Co3O4/CuO composites as anodes for high-performance lithium-ion batteries. Journal of Solid State Chemistry, 2023, 318, 123787.	1.4	6
844	A potential flexible fuel cell with dual-functional hydrogel based on multi-component crosslinked hybrid polyvinyl alcohol. Energy, 2023, 265, 126166.	4.5	3
845	Nickel-rich layered oxide cathodes for lithium-ion batteries: Failure mechanisms and modification strategies. Journal of Energy Storage, 2023, 58, 106405.	3.9	13
846	Tuning the structural disordering in hierarchical LiNi0.5Mn1.5O4 microrods for stable high-rate electrode performance. Journal of Alloys and Compounds, 2023, 937, 168544.	2.8	3
847	Fundamentals and advances of ligand field theory in understanding structure-electrochemical property relationship of intercalation-type electrode materials for rechargeable batteries. Progress in Materials Science, 2023, 133, 101055.	16.0	16
848	Impact of carbon additives on lead-acid battery electrodes: A review. Renewable and Sustainable Energy Reviews, 2023, 173, 113078.	8.2	14
849	A perspective on the recovery mechanisms of spent lithium iron phosphate cathode materials in different oxidation environments. Journal of Hazardous Materials, 2023, 445, 130502.	6.5	24
850	Electrochemical Investigation of Spherical Hard Carbon Negative Electrodes for Sodium Secondary Batteries. Electrochemistry, 2023, 91, 017003-017003.	0.6	1
851	Empirical decay relationship between ionic conductivity and porosity of garnet type inorganic solid-state electrolytes. Transactions of Nonferrous Metals Society of China, 2022, 32, 3362-3373.	1.7	3
852	Electrochemoâ€Mechanical Stresses and Their Measurements in Sulfideâ€Based Allâ€Solidâ€State Batteries: A Review. Advanced Energy Materials, 2023, 13, .	10.2	20
853	Improving the interfacial stability, conductivity, and electrochemical performance of Li2MoO3@g-C3N4 composite as a promising cathode for lithium-ion battery. Journal of Industrial and Engineering Chemistry, 2022, , .	2.9	0
854	Preparation of N-doped MoP-based core-shell nanorods and their electrocatalytic performance in hydrogen evolution. Journal of Fuel Chemistry and Technology, 2022, 50, 1437-1448.	0.9	2

#	Article	IF	Citations
855	Stable Na-organosulfide batteries enabled by an in-situ constructed protective interphase. Chemical Engineering Journal, 2023, 455, 140562.	6.6	4
856	VO₂ Nanosheets Assembled into Hierarchical Flower-Like Hollow Microspheres for Li-Ion Batteries. ACS Applied Nano Materials, 2022, 5, 18023-18034.	2.4	5
858	Borate-Based Compounds as Mixed Polyanion Cathode Materials for Advanced Batteries. Molecules, 2022, 27, 8047.	1.7	5
859	Electrochemical energy storage and conversion: An overview. Wiley Interdisciplinary Reviews: Energy and Environment, 2023, 12, .	1.9	6
860	More than One Century of History for Photocatalysis, from Past, Present and Future Perspectives. Catalysts, 2022, 12, 1572.	1.6	3
861	Importance of Thermal Transport for the Design of Solid-State Battery Materials. , 2022, 1, .		8
862	Adjusting the Redox Coupling Effect via Li/Co Antiâ€Site Defect for Stable Highâ€Voltage LiCoO₂ Cathode. Advanced Functional Materials, 2023, 33, .	7.8	9
863	Russianâ€Dollâ€Like Porous Carbon as Anode Materials for Highâ€Performance Potassiumâ€Ion Hybrid Capacitors. Small, 2023, 19, .	5.2	5
864	Longâ€Range Cationic Disordering Induces two Distinct Degradation Pathways in Coâ€Free Niâ€Rich Layered Cathodes. Angewandte Chemie - International Edition, 2023, 62, .	7.2	35
865	A synergetic modification approach toward high capacity Ni-rich cathode materials for next generation lithium-ion batteries. Solid State Ionics, 2022, 387, 116053.	1.3	4
866	Degradation Pathways of Cobaltâ€Free LiNiO₂ Cathode in Lithium Batteries. Advanced Functional Materials, 2023, 33, .	7.8	15
867	Composite Cathode Design for High-Energy All-Solid-State Lithium Batteries with Long Cycle Life. ACS Energy Letters, 2023, 8, 521-528.	8.8	16
868	Longâ€Range Cationic Disordering Induces two Distinct Degradation Pathways in Coâ€Free Niâ€Rich Layered Cathodes. Angewandte Chemie, 0, , .	1.6	2
869	Electrochemical and spectroscopic studies on carbonâ€coated and iodineâ€doped <scp>LiFeBO₃</scp> as a cathode material for lithiumâ€ion batteries. Bulletin of the Korean Chemical Society, 2023, 44, 298-303.	1.0	2
870	Fabrication of PVA/SiO2 (Nanofiber) Membranes Prepared Using Electrospinning Method for Lithium Battery Separator. Journal of Physics: Conference Series, 2022, 2392, 012008.	0.3	1
871	Enabling Enhanced Cycling Stability of a LiNi_{0.8}Co_{0.15}Al_{0.05}O₂ Cathode by Constructing a Ti-Rich Surface. Journal of Physical Chemistry C, 2022, 126, 20747-20753.	1.5	0
872	Optimal utilization of integrated photovoltaic battery systems: An application in the residential sector. IISE Transactions, 2023, 55, 1203-1216.	1.6	0
873	Alternate Synthesis Method for Highâ€Performance Manganese Rich Cation Disordered Rocksalt Cathodes. Advanced Energy Materials, 2023, 13, .	10.2	8

#	Article	IF	Citations
874	Wet-chemical synthesis of spinel Li4Ti5O12 as a negative electrode. Emergent Materials, 0, , .	3.2	0
875	Propanediol Cyclic Sulfate as An Electrolyte Additive to Improve the Cyclic Performance of LiNi_{0.6}Co_{0.1}Mn_{0.3}O₂/Graphite Pouchâ€Cell at High Voltage. ChemElectroChem, 2023, 10, .	1.7	3
876	Activated Internetwork Pathways in Partiallyâ€Disordered Spinel Cathode Materials with Ultrahigh Rate Performance. Advanced Energy Materials, 2023, 13, .	10.2	2
877	Mechanism of high-concentration electrolyte inhibiting the destructive effect of Mn(II) on the performance of lithium-ion batteries. Journal of Energy Chemistry, 2023, 78, 381-392.	7.1	7
878	Metal Bioleaching of Used Lithium-Ion Battery Using <i>Acidophilic ferrooxidans</i> Isolated from Acid Mine Drainage. Key Engineering Materials, 0, 937, 193-200.	0.4	1
879	Unraveling the Mechanism of Structural Stability and Electrochemical Performance of N/Fâ€Modified Li ₂ FeSiO ₄ : A Firstâ€Principles Study. Advanced Theory and Simulations, 0, , 2200610.	1.3	0
880	Perspective on carbon nanotubes as conducting agent in lithium-ion batteries: the status and future challenges. Carbon Letters, 2023, 33, 325-333.	3.3	15
881	Impact of Ni Content on the Electrochemical Performance of the Co-Free, Li and Mn-Rich Layered Cathode Materials. Electrochem, 2023, 4, 21-30.	1.7	3
882	Towards commercialization of fluorinated cation-disordered rock-salt Li-ion cathodes. Frontiers in Chemistry, 0, 11, .	1.8	1
883	Beam-induced redox chemistry in iron oxide nanoparticle dispersions at ESRFâ€“EBS. Journal of Synchrotron Radiation, 2023, 30, 440-444.	1.0	5
884	Flexible hardâ^'soft carbon heterostructure based on mesopore confined carbonization for ultrafast and highly durable sodium storage. Carbon, 2023, 205, 310-320.	5.4	11
885	From amorphous to crystalline: a universal strategy for structure regulation of high-entropy transition metal oxides. Chemical Science, 2023, 14, 1787-1796.	3.7	5
886	Surface Stabilization of Cobalt-Free LiNiO₂ with Niobium for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2023, 15, 1442-1451.	4.0	9
887	Interface Engineering of Zinc Electrode for Rechargeable Alkaline Zincâ€Based Batteries. Small Methods, 2023, 7, .	4.6	13
888	A customized strategy to design intercalation-type Li-free cathodes for all-solid-state batteries. National Science Review, 2023, 10, .	4.6	6
889	Stable fast-charging sodium-ion batteries achieved by a carbomethoxy-modified disodium organic material. Cell Reports Physical Science, 2023, , 101240.	2.8	2
890	A novel scalable thinning route to enhance long-term stability of layered cathode materials for Li-ion batteries. Journal of Materials Science, 2023, 58, 864-879.	1.7	2
891	Dualâ€strategy modification on P2â€Na_{0.67}Ni_{0.33}Mn_{0.67}O₂ realizes stable highâ€voltage cathode and high energy density full cell for sodiumâ€ion batteries. SusMat, 2023, 3, 58-71.	7.8	18

#	Article	IF	Citations
892	Fluorine-Rich Oxyfluoride Spinel-like Li_{1.25}Ni_{0.625}Mn_{1.125}O₃F Utilizing Redox-Active Ni and Mn for High Capacity and Improved Cyclability. , 2023, 5, 527-535.		2
893	Multiscale Electrochemistry of Lithium Manganese Oxide (LiMn₂O₄): From Single Particles to Ensembles and Degrees of Electrolyte Wetting. ACS Sustainable Chemistry and Engineering, 2023, 11, 1459-1471.	3.2	7
894	Design of workflows for crosstalk detection and lifetime deviation onset in Li-ion batteries. Joule, 2023, 7, 42-56.	11.7	8
895	d-p Hybridization-Induced â€œTrappingâ€“Couplingâ€“Conversionâ€•Enables High-Efficiency Nb Single-Atom Catalysis for Liâ€“S Batteries. Journal of the American Chemical Society, 2023, 145, 1728-1739.	6.6	62
896	Solidâ€State Reaction Heterogeneity During Calcination of Lithiumâ€Ion Battery Cathode. Advanced Materials, 2023, 35, .	11.1	10
897	Revisiting Lithiumâ€•and Sodiumâ€Ion Storage in Hard Carbon Anodes. Advanced Materials, 2023, 35, .	11.1	22
898	Accessing the Primary Solidâ€“Electrolyte Interphase on Lithium Metal: A Method for Lowâ€Concentration Compound Analysis. ChemSusChem, 2023, 16, .	3.6	2
899	Removing the Intrinsic NiO Phase and Residual Lithium for High-Performance Nickel-Rich Materials. Energy Material Advances, 2023, 4, .	4.7	15
900	Unveiling the effect and correlative mechanism of series-dilute electrolytes on lithium metal anodes. Energy Storage Materials, 2023, 56, 141-154.	9.5	11
901	Highly-concentrated bis(fluorosulfonyl)imide-based ternary gel polymer electrolytes for high-voltage lithium metal batteries. Journal of Power Sources, 2023, 557, 232554.	4.0	8
902	A kinetic study on cobalt-free high-nickel layered oxide cathode materials for practical lithium-ion batteries. Journal of Power Sources, 2023, 558, 232633.	4.0	10
903	Design and synthesis of high-silicon silicon suboxide nanowires by radio-frequency thermal plasma for high-performance lithiumâ€ion battery anodes. Applied Surface Science, 2023, 614, 156235.	3.1	12
904	Fabrication of Si/N-doped carbon nanotube composite via spray drying followed by catalytic chemical vapor deposition. Journal of Alloys and Compounds, 2023, 939, 168743.	2.8	3
905	Reinforcement Learning-Based Energy Management System Enhancement Using Digital Twin for Electric Vehicles. , 2022, , .		3
906	LiNi0.8Fe0.1Al0.1O2 as a Cobalt-Free Cathode Material with High Capacity and High Capability for Lithium-Ion Batteries. Batteries, 2023, 9, 23.	2.1	1
907	Fabrication of modern lithium ion batteries by 3D inkjet printing: opportunities and challenges. Heliyon, 2022, 8, e12623.	1.4	8
908	Laser-Assisted Surface Lithium Fluoride Decoration of a Cobalt-Free High-Voltage Spinel LiNi_{0.5}Mn_{1.5}O₄ Cathode for Long-Life Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2023, 15, 1247-1255.	4.0	8
909	A non-academic perspective on the future of lithium-based batteries. Nature Communications, 2023, 14, .	5.8	135

#	Article	IF	Citations
910	Oxygen Anion Redox Chemistry Correlated with Spin State in Niâ€Rich Layered Cathodes. Advanced Science, 2023, 10, .	5.6	7
911	The Snâ€“red Pâ€“Feâ€“based alloy materials for efficient Liâ€“ion battery anodes. Journal of Industrial and Engineering Chemistry, 2023, 121, 299-311.	2.9	10
912	Amorphous MnO₂-Modified FeOOH Ternary Composite with High Pseudocapacitance As Anode for Lithium-Ion Batteries. ACS Applied Energy Materials, 2023, 6, 2022-2030.	2.5	12
913	Ultrafine ZnSe/CoSe nanodots encapsulated in coreâ€“shell MOF-derived hierarchically porous N-doped carbon nanotubes for superior lithium/sodium storage. Journal of Materials Chemistry A, 2023, 11, 5056-5066.	5.2	12
914	Regulating morphology and lithium storage properties of manganese oxalate prepared by optimizing reaction temperature. Journal of Materials Science: Materials in Electronics, 2023, 34, .	1.1	0
915	Voltage-dependent formation of cathodeâ€“electrolyte interphase with independent metallic layer in LiNi0.8Mn0.1Co0.1O2 cathode for high-energy density lithium-ion batteries. Materials Today Sustainability, 2023, 21, 100326.	1.9	2
916	Battery cathodes for lithium-ion batteries with liquid and solid-state electrolytes. , 2023, , 171-195.		0
917	Interpretable Machine Learning Enabled Inorganic Reaction Classification and Synthesis Condition Prediction. Chemistry of Materials, 2023, 35, 1062-1079.	3.2	4
918	A ZIF-8 composite SiO₂-enhanced high-performance PEO-based solid-state electrolyte for Li-metal batteries. Sustainable Energy and Fuels, 2023, 7, 1245-1255.	2.5	2
919	Production and Use of Electric Vehicle Batteries. Advances in Computer and Electrical Engineering Book Series, 2022, , 279-304.	0.2	0
920	Graphene-based nanocomposites as electrode materials for Zn-air batteries. , 2023, , 395-412.		0
921	Energy efficiency to improve sustainability. , 2023, , 359-386.		0
922	Se with Se-C bonds encapsulated in a honeycomb 3D porous carbon as an excellent performance cathode for Li-Se batteries. New Carbon Materials, 2023, 38, 190-198.	2.9	3
923	Heuristics for Molten-Salt Synthesis of Single-Crystalline Ultrahigh-Nickel Layered Oxide Cathodes. ACS Applied Materials & Interfaces, 2023, 15, 12895-12907.	4.0	8
924	Impact of Structural Flexibility of Amine Moieties as Bridges for Redoxâ€Active Sites on Secondary Battery Performance. ChemSusChem, 0, , .	3.6	0
925	Spherically Structured Ceâ€Metalâ€Organic Frameworks with Rough Surfaces and Carbonâ€Coated Cerium Oxide as Potential Electrodes for Lithium Storage and Supercapacitors. ChemistrySelect, 2023, 8, .	0.7	3
926	Uncovering the degradation mechanism induced by ion-diffusion kinetics in large-format lithium-ion pouch cells. Journal of Energy Chemistry, 2023, 83, 98-105.	7.1	5
927	Degradation in Ni-Rich LiNi_{1â€“xâ€“y}Mn_xCo_yO₂/Graphite Batteries: Impact of Charge Voltage and Ni Content. Journal of Physical Chemistry C, 2023, 127, 7054-7070.	1.5	2

#	Article	IF	Citations
928	Unconstrained Machine Learning Screening for New Liâ€Ion Cathode Materials Enhanced by Class Balancing. Advanced Theory and Simulations, 0, , .	1.3	1
929	Computational insights into ionic conductivity of transition metal electrode materials for metal-ion batteries - A review. Solid State Ionics, 2023, 393, 116170.	1.3	10
930	U.S. cobalt scenario analysis to mid-century: Import dependency or marketable commodity?. Resources, Conservation & Recycling Advances, 2023, 17, 200134.	1.1	0
931	Superlattice-like alternating layered Zn2SiO4/C with large interlayer spacing for high-performance sodium storage. Electrochimica Acta, 2023, 449, 142163.	2.6	2
932	Fluorine substitution and pre-sodiation strategies to boost energy density of V-based NASICON-structured SIBs: Combined theoretical and experimental study. Chemical Engineering Journal, 2023, 463, 142464.	6.6	6
933	Preparation of porous carbon spheres and their application as anode materials for lithium-ion batteries: A review. Materials Today Nano, 2023, 22, 100321.	2.3	7
934	Nanofiltration membrane comprising structural regulator Cyclen for efficient Li+/Mg2+ separation. Desalination, 2023, 556, 116575.	4.0	20
935	Surface modification with Li3PO4 enhances the electrochemical performance of LiNi0.9Co0.05Mn0.05O2 cathode materials for Li-Ion batteries. Journal of Alloys and Compounds, 2023, 947, 169455.	2.8	3
936	Determination of the tortuosity and contact resistances in thick graphite anodes via electrochemical impedance spectroscopy. Journal of Power Sources, 2023, 569, 233003.	4.0	1
937	An overview on in situ/operando battery sensing methodology through thermal and stress measurements. Journal of Energy Storage, 2023, 64, 107164.	3.9	3
938	Tuning the structure characteristic of the flexible covalent organic framework (COF) meets a high performance for lithium-sulfur batteries. Nano Energy, 2023, 109, 108297.	8.2	21
939	Accelerating the Li-ion transmission of free-standing thick electrodes by using CMC-Li as ion-conducting binder. Materials Today Sustainability, 2023, 21, 100304.	1.9	1
940	Surface Modification of Hetero-phase Nanoparticles for Low-Cost Solution-Processable High-k Dielectric Polymer Nanocomposites. ACS Applied Materials & Interfaces, 2023, 15, 7371-7379.	4.0	8
941	Stratified adsorption strategy facilitates highly stable dendrite free zinc metal anode. Energy Storage Materials, 2023, 56, 468-477.	9.5	20
942	Electrodeposition of Li-Ion Cathode Materials: The Fascinating Alternative for Li-Ion Micro-Batteries Fabrication. Journal of the Electrochemical Society, 2023, 170, 020509.	1.3	3
943	Honeycomb layered oxide as cathodic material for Li- and post-Li batteries: A self-consistent PBEÂ+ÂU study of metal ions (A = Li, Ca, Al) intercalation in bulk SrRu2O6. Solid State Ionics, 2023, 392, 116165.	1.3	0
944	State of the art of lithium-ion battery material potentials: An analytical evaluations, issues and future research directions. Journal of Cleaner Production, 2023, 394, 136246.	4.6	28
945	Stabilizing cathodes and interphases for next-generation Li-ion batteries. Journal of Power Sources, 2023, 561, 232738.	4.0	12

#	Article	IF	Citations
946	Understanding the Low-Voltage Behavior of Stoichiometric Over Lithiated Spinel Li_{1+x}Ni_{0.5}Mn_{1.5}O₄: An Electrochemical Investigation. Journal of the Electrochemical Society, 2023, 170, 020513.	1.3	1
947	An endâ€toâ€end artificial intelligence platform enables realâ€time assessment of superionic conductors. SmartMat, 2023, 4, .	6.4	1
948	Probing the Mysterious Behavior of Tungsten as a Dopant Inside Pristine Cobaltâ€Free Nickelâ€Rich Cathode Materials. Advanced Functional Materials, 2023, 33, .	7.8	10
949	Crystal Group Prediction for Lithiated Manganese Oxides Using Machine Learning. Batteries, 2023, 9, 112.	2.1	3
950	Recent Progress in Biomass-Derived Carbon Materials for Li-Ion and Na-Ion Batteriesâ€”A Review. Batteries, 2023, 9, 116.	2.1	17
951	Flexible Thermoelectric Generator from Bulk Graphite and Bismuth Traces on Emery Paper. Energy Technology, 2023, 11, .	1.8	3
952	<scp>MOFâ€Derived</scp> Materials Enabled Lithiophilic <scp>3D</scp> Hosts for Lithium Metal Anode â€" A Review. Chinese Journal of Chemistry, 2023, 41, 1861-1874.	2.6	23
953	Specific countermeasures to intrinsic capacity decline issues and future direction of LiMn2O4 cathode. Energy Storage Materials, 2023, 57, 577-606.	9.5	21
954	Electrospinning Preparation and Electrochemical Properties of BiFeO3 and GdFeO3 Nanofibers for their Potential Lithium-Ion Battery Applications. Journal of Electronic Materials, 2023, 52, 3008-3017.	1.0	2
955	A review of existing and emerging binders for silicon anodic Li-ion batteries. Nano Research, 2023, 16, 6736-6752.	5.8	9
956	In situ Interweaved Binder Framework Mitigating the Structural and Interphasial Degradations of Highâ€nickel Cathodes in Lithiumâ€ion Batteries. Angewandte Chemie, 2023, 135, .	1.6	0
957	In situ Interweaved Binder Framework Mitigating the Structural and Interphasial Degradations of Highâ€nickel Cathodes in Lithiumâ€ion Batteries. Angewandte Chemie - International Edition, 2023, 62, .	7.2	23
958	Assessing the Intrinsic Roles of Key Dopant Elements in Highâ€Nickel Layered Oxide Cathodes in Lithiumâ€Based Batteries. Advanced Energy Materials, 2023, 13, .	10.2	25
959	Facile Deposition of the LiFePO₄ Cathode by the Electrophoresis Method. ACS Omega, 2023, 8, 8045-8051.	1.6	2
960	Dynamic Structure Evolution of Extensively Delithiated High Voltage Spinel Li_{1+x}Ni_{0.5}Mn_{1.5}O₄ x < 1.5. Journal of the American Chemical Society, 2023, 145, 4450-4461.	6.6	4
961	A cyclic organosulfide cathode with ultrastable cycling performance in lithium batteries. Chemical Communications, 2023, 59, 3289-3292.	2.2	1
962	Selective Extraction of Critical Metals from Spent Lithium-Ion Batteries. Environmental Science & Technology, 2023, 57, 3940-3950.	4.6	32
963	Protecting groups in insertion chemistry: Site-selective positioning of lithium ions in intercalation hosts. Matter, 2023, 6, 1125-1139.	5.0	4

#	Article	IF	Citations
964	Challenges and Opportunities to Mitigate the Catastrophic Thermal Runaway of Highâ€Energy Batteries. Advanced Energy Materials, 2023, 13, .	10.2	22
965	Highâ€Entropy Perovskites for Energy Conversion and Storage: Design, Synthesis, and Potential Applications. Small Methods, 2023, 7, .	4.6	14
966	A <scp>Pyrazineâ€Based 2D</scp> Conductive <scp>Metalâ€Organic</scp> Framework for Efficient Lithium Storage^{â€}. Chinese Journal of Chemistry, 2023, 41, 1691-1696.	2.6	7
967	Research progress and perspectives on ultra-low temperature organic batteries. Journal of Materials Chemistry A, 2023, 11, 7898-7923.	5.2	5
968	Atomic Insights into Advances and Issues in Lowâ€Temperature Electrolytes. Advanced Energy Materials, 2023, 13, .	10.2	22
969	Moisture stable and ultrahigh-rate Ni/Mn-based sodium-ion battery cathodes via K+ decoration. Nano Research, 2023, 16, 6890-6902.	5.8	8
970	Challenges of Stable Ion Pathways in Cathode Electrode for Allâ€Solidâ€State Lithium Batteries: A Review. Advanced Energy Materials, 2023, 13, .	10.2	22
971	A Systematic Study on the Effects of Solvating Solvents and Additives in Localized Highâ€Concentration Electrolytes over Electrochemical Performance of Lithiumâ€Ion Batteries. Angewandte Chemie - International Edition, 2023, 62, .	7.2	8
972	Development of All-Solid-State Li-Ion Batteries: From Key Technical Areas to Commercial Use. Batteries, 2023, 9, 157.	2.1	9
973	A Systematic Study on the Effects of Solvating Solvents and Additives in Localized Highâ€Concentration Electrolytes over Electrochemical Performance of Lithiumâ€Ion Batteries. Angewandte Chemie, 2023, 135, .	1.6	3
974	Synthesis and characterization of poly [(3,4â€ethylenedioxy) thiophene]:polystyrene sulfonate (<scp>PEDOT</scp>:<scp>PSS</scp>) for energy storage device application. Journal of Applied Polymer Science, 2023, 140, .	1.3	2
975	Nanosecond Laser Annealing of NMC 811 Cathodes for Enhanced Performance. Journal of the Electrochemical Society, 2023, 170, 030520.	1.3	3
976	Sulphonated graphene-encapsulated Fe2N in the PANI matrix as a high performance lithium ion battery anode. Materials Today Chemistry, 2023, 29, 101451.	1.7	2
977	Reinforcing Native Solidâ€Electrolyte Interphase Layers via Electrolyteâ€Swellable Softâ€Scaffold for Lithium Metal Anode. Advanced Energy Materials, 2023, 13, .	10.2	5
978	Design of an Online Electrochemical Mass Spectrometry System to Study Gas Evolution from Cells with Lean and Volatile Electrolytes. Small Methods, 2023, 7, .	4.6	7
979	Li3TiCl6 as ionic conductive and compressible positive electrode active material for all-solid-state lithium-based batteries. Nature Communications, 2023, 14, .	5.8	14
980	Operation of Layered LiCoO₂ to Higher Voltages with a Localized Saturated Electrolyte. ACS Applied Materials & Interfaces, 2023, 15, 15458-15466.	4.0	3
981	Oneâ€Pot, Threeâ€Phase Recycling of Metals from Liâ€Ion Batteries in Rotating, Concentricâ€Liquid Reactors. Advanced Materials, 2023, 35, .	11.1	3

#	Article	IF	Citations
982	Sodium Ion Pre-Intercalation of Î´-MnO2 Nanosheets for High Energy Density Aqueous Zinc-Ion Batteries. Nanomaterials, 2023, 13, 1075.	1.9	4
983	Effects of the triangular hollow tubes structure and carbon coating on the lithium storage performances of Co₃O₄/NiO microspheres. Applied Physics Letters, 2023, 122, 123901.	1.5	0
984	Recent advances in two-dimensional MXenes for zinc-ion batteries. Materials Chemistry Frontiers, 2023, 7, 2373-2404.	3.2	5
985	Highly stable lithium-ion wide-temperature storage performance achieved via anion-dominated solvation structure and electric double-layer engineering. Journal of Power Sources, 2023, 567, 232975.	4.0	1
986	Electrolytes, Additives and Binders for NMC Cathodes in Li-Ion Batteriesâ€"A Review. Batteries, 2023, 9, 193.	2.1	11
987	Improving the Electrochemical Performance of a Solid-State Battery with a LiFePO₄â€"Garnet-Based Composite Cathode. Journal of Physical Chemistry C, 2023, 127, 6192-6198.	1.5	2
988	Surface modification with lithium-ion conductor Li3PO4 to enhance the electrochemical performance of lithium-rich layered Li1.2Ni0.2Mn0.6O2. Ionics, 2023, 29, 2141-2152.	1.2	5
989	Progress and Perspective of Glass-Ceramic Solid-State Electrolytes for Lithium Batteries. Materials, 2023, 16, 2655.	1.3	2
990	Mechanochemical synthesis of Li-rich (Li₂Fe)SO cathode for Li-ion batteries. Green Chemistry, 0, , .	4.6	3
991	Highâ€Voltage Spinel and Li₂MnO₃ Composite Structure Construction in LiMn_{0.8}Ni_{0.2}O₂ for Manganeseâ€Based Lithiumâ€Ion Battery Cathode Materials. Advanced Energy Materials, 2023, 13, .	10.2	2
992	The role of ceramic composite materials in achieving next-generation electrochemical energy storage devices. , 2023, , 335-370.		0
993	Asymmetric Swelling Behaviors of Highâ€Energyâ€Density Lithiumâ€Ion Batteries with a SiO_x/Graphite Composite Anode. Small, 2023, 19, .	5.2	1
994	Watermelon Fleshâ€Like Ni₃S₂@C Composite Separator with Polysulfide Shuttle Inhibition for Highâ€Performance Lithiumâ€Sulfur Batteries. Small, 2023, 19, .	5.2	3
995	Redox-active polynaphthalimides as versatile electrode materials for high-voltage, high-rate and long-cycle-life organic Li-ion batteries. Journal of Materials Chemistry A, 2023, 11, 11210-11221.	5.2	2
996	Lithium-Ion Diffusion in Near-Stoichiometric Polycrystalline and Monocrystalline LiCoO₂. Chemistry of Materials, 2023, 35, 3307-3315.	3.2	5
997	Enhanced electrochemical performance of LiNiO2 cathode material by precursor preoxidation for lithium-ion batteries. Journal of Alloys and Compounds, 2023, 953, 170134.	2.8	3
998	Reversible cationic-anionic redox in disordered rocksalt cathodes enabled by fluorination-induced integrated structure design. Journal of Energy Chemistry, 2023, 82, 158-169.	7.1	6
999	Manganese and Cobalt-Free Ultrahigh-Ni-Rich Single-Crystal Cathode for High-Performance Lithium Batteries. ACS Applied Materials & Interfaces, 2023, 15, 20843-20853.	4.0	3

#	Article	IF	Citations
1000	LiAlO₂-Modified Li Negative Electrode with Li₁₀GeP₂S₁₂ Electrolytes for Stable All-Solid-State Lithium Batteries. ACS Applied Materials & Interfaces, 2023, 15, 21179-21186.	4.0	8
1001	Electrochemical Imaging of Interfaces in Energy Storage via Scanning Probe Methods: Techniques, Applications, and Prospects. Annual Review of Analytical Chemistry, 2023, 16, 93-115.	2.8	2
1002	Investigation of LiFePO4/MWCNT cathode-based half-cell lithium-ion batteries in subzero temperature environments. Ionics, 2023, 29, 2163-2174.	1.2	3
1003	Mechanistic understanding of lithium-anode protection by organosulfide-based solid-electrolyte interphases and its implications. Journal of Materials Chemistry A, 2023, 11, 9772-9783.	5.2	3
1004	Durable Lithiumâ€“Sulfur Batteries Based on a Composite Carbon Nanotube Cathode. ACS Applied Energy Materials, 2023, 6, 4511-4519.	2.5	5
1005	High concentration from resources to market heightens risk for power lithium-ion battery supply chains globally. Environmental Science and Pollution Research, 2023, 30, 65558-65571.	2.7	1
1006	Implanting CuS Quantum Dots into Carbon Nanorods for Efficient Magnesiumâ€ion Batteries. Small, 2023, 19, .	5.2	16
1022	Electrostatic Covalent Organic Frameworks as On-Demand Molecular Traps for High-Energy Li Metal Battery Electrodes. ACS Energy Letters, 2023, 8, 2463-2474.	8.8	9
1023	Rethinking circular economy for electronics, energy storage, and solar photovoltaics with long product lifeÂcycles. MRS Bulletin, 2023, 48, 375-385.	1.7	6
1035	Advances in modification methods and the future prospects of high-voltage spinel LiNi_{0.5}Mn_{1.5}O₄â€” a review. Journal of Materials Chemistry A, 2023, 11, 13889-13915.	5.2	6
1045	High-Capacity Oxide Cathode beyond 300 mAh/g. ACS Energy Letters, 2023, 8, 3025-3037.	8.8	13
1048	Generalized State of Health Estimation Approach based on Neural Networks for Various Lithium-Ion Battery Chemistries. , 2023, , .		1
1061	Recent developments in zinc metal anodes, cathodes, and electrolytes for zinc-ion hybrid capacitors. Sustainable Energy and Fuels, 2023, 7, 3776-3795.	2.5	5
1067	Probing lithium mobility at a solid electrolyte surface. Nature Materials, 2023, 22, 848-852.	13.3	11
1068	Co-free/Co-poor high-Ni cathode for high energy, stable and low-cost lithium-ion batteries. Rare Metals, 2023, 42, 2214-2225.	3.6	4
1092	Emerging Atomic Layer Deposition for the Development of High-Performance Lithium-Ion Batteries. Electrochemical Energy Reviews, 2023, 6, .	13.1	15
1096	The Active Role of Conjugate Polymer Composites in Electrochemical Storage: A Themed Perspective on Polymer-MOF Nanocomposites for Metal-Ion Batteries. Green Energy and Technology, 2023, , 211-228.	0.4	2
1099	Moving forward with batteries. Nature Sustainability, 2023, 6, 721-722.	11.5	0

#	Article	IF	Citations
1112	Modeling the Energy Storage System for Different Forms of Discharge Current. , 2023, , .		0
1114	Battery Management System for On-Board Data-Driven State of Health Estimation for Aviation and Space Applications. , 2023, , .		0
1117	A reflection on polymer electrolytes for solid-state lithium metal batteries. Nature Communications, 2023, 14, .	5.8	15
1120	Analyzing of the Performance of Batteries in Electrical Vehicle. , 2023, , .		1
1139	Aqueous electrolyte-mediated reversible K⁺ ion insertion into graphite. Physical Chemistry Chemical Physics, 2023, 25, 24298-24302.	1.3	0
1180	Metal-ion battery. , 2024, , 237-242.		0
1195	Understanding insight of commercial li-ion battery samsung 25R cylindrical type 18650. AIP Conference Proceedings, 2023, , .	0.3	0
1198	Decoding the puzzle: recent breakthroughs in understanding degradation mechanisms of Li-ion batteries. Dalton Transactions, 2023, 52, 17061-17083.	1.6	1
1209	MgAl Layered Double Hydroxide as a New Transition Metal Free Anode for Lithium-ion Batteries. Chemical Communications, 0, , .	2.2	1
1258	A review of the mechanical integrity and electrochemical performance of flexible lithium-ion batteries. Nano Research, 0, , .	5.8	0
1266	Applications â€“ Transportation | Rail vehicles: Fuel cells and batteries. , 2023, , .		0
1272	Preparation and Structural Investigation of Olivine Structured LiFePO4. Springer Proceedings in Materials, 2024, , 245-255.	0.1	0
1279	Tuning Properties of Energy Materials. , 2024, , 1-26.		0
1288	Design and Development of a Low-Cost and Compact Real-Time Monitoring Tool for Battery Life Calculation. , 0, , .		0
1317	3R-NbS₂ as a highly stable anode for sodium-ion batteries. Chemical Communications, 2024, 60, 1309-1312.	2.2	0
1323	End-of-life vehicles. , 2024, , 181-201.		0
1329	Unveiling the Performance Symphony of Iron Fluoride Cathodes in Advanced Energy Storage Devices. Korean Journal of Chemical Engineering, 2024, 41, 53-72.	1.2	0
1336	Progress and prospects of graphene-based materials in lithium batteries. Rare Metals, 2024, 43, 1886-1905.	3.6	0

#	Article	IF	Citations
1345	The rise of high-entropy battery materials. Nature Communications, 2024, 15, .	5.8	0
1381	Electronic and Electrochemical Properties of Novel Cathode Material NaFeSO4OH by First-Principle Calculations. Lecture Notes in Mechanical Engineering, 2024, , 285-298.	0.3	0
1383	Lithium batteries - Secondary systems â€“ Lithium-metal systems | Electrolytes: Overview. , 2023, , .		0