Xi-Qian Yu

List of Publications by Year
in descending order

190 papers	25,769 citations	5876 81 h-index	6454 157 g-index
195 all docs	195 docs citations	195 times ranked	17881 citing authors

#	Article	IF	Citations
1	Role of Surface Structure on Li-Ion Energy Storage Capacity of Two-Dimensional Transition-Metal Carbides. Journal of the American Chemical Society, 2014, 136, 6385-6394.	6.6	1,164
2	Approaching Practically Accessible Solid-State Batteries: Stability Issues Related to Solid Electrolytes and Interfaces. Chemical Reviews, 2020, 120, 6820-6877.	23.0	891
3	Structural Changes and Thermal Stability of Charged LiNi_{<i>x</i>}Mn_{<i>y</i>}Co_{<i>z</i>}O₂ Cathode Materials Studied by Combined <i>In Situ</i> Time-Resolved XRD and Mass Spectroscopy. ACS Applied Materials & Interfaces, 2014, 6, 22594-22601.	4.0	731
4	Evolution of redox couples in Li- and Mn-rich cathode materials and mitigation of voltage fade by reducing oxygen release. Nature Energy, 2018, 3, 690-698.	19.8	675
5	Origin of additional capacities in metal oxide lithium-ion battery electrodes. Nature Materials, 2013, 12, 1130-1136.	13.3	635
6	Building aqueous K-ion batteries for energy storage. Nature Energy, 2019, 4, 495-503.	19.8	630
7	Trace doping of multiple elements enables stable battery cycling of LiCoO2 at 4.6â€‰V. Nature Energy, 2019, 4, 594-603.	19.8	572
8	Probing the Mechanism of High Capacitance in 2D Titanium Carbide Using In Situ Xâ€Ray Absorption Spectroscopy. Advanced Energy Materials, 2015, 5, 1500589.	10.2	521
9	A zero-strain layered metal oxide as the negative electrode for long-life sodium-ion batteries. Nature Communications, 2013, 4, 2365.	5.8	515
10	Understanding the Rate Capability of Highâ€Energyâ€Density Liâ€Rich Layered Li_{1.2}Ni_{0.15}Co_{0.1}Mn_{0.55}O₂ Cathode Materials. Advanced Energy Materials, 2014, 4, 1300950.	10.2	480
11	Combining In Situ Synchrotron Xâ€Ray Diffraction and Absorption Techniques with Transmission Electron Microscopy to Study the Origin of Thermal Instability in Overcharged Cathode Materials for Lithiumâ€Ion Batteries. Advanced Functional Materials, 2013, 23, 1047-1063.	7.8	458
12	Sodium Storage and Transport Properties in Layered Na₂Ti₃O₇ for Roomâ€Temperature Sodiumâ€Ion Batteries. Advanced Energy Materials, 2013, 3, 1186-1194.	10.2	456
13	Kinetic analysis on LiFePO4 thin films by CV, GITT, and EIS. Electrochimica Acta, 2011, 56, 4869-4875.	2.6	435
14	A highly active and stable hydrogen evolution catalyst based on pyrite-structured cobalt phosphosulfide. Nature Communications, 2016, 7, 10771.	5.8	418
15	Identifying the Critical Role of Li Substitution in P2â€“Na_{<i>x</i>}[Li_{<i>y</i>}Ni_{<i>z</i>}Mn_{1â€“<i>y</i>â€“<i>z</i>}]O₂ (0 < <i>x</i>, <i>y</i>, <i>z</i> < 1) Intercalation Cathode Materials for High-Energy Na-Ion Batteries. Chemistry of Materials, 2014, 26, 1260-1269.	3.2	417
16	Aluminaâ€Coated Patterned Amorphous Silicon as the Anode for a Lithiumâ€Ion Battery with High Coulombic Efficiency. Advanced Materials, 2011, 23, 4938-4941.	11.1	397
17	Synchrotron X-ray Analytical Techniques for Studying Materials Electrochemistry in Rechargeable Batteries. Chemical Reviews, 2017, 117, 13123-13186.	23.0	390
18	Suppressing Surface Lattice Oxygen Release of Liâ€Rich Cathode Materials via Heterostructured Spinel Li₄Mn₅O₁₂ Coating. Advanced Materials, 2018, 30, e1801751.	11.1	348

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19	Na ⁺ /vacancy disordering promises high-rate Na-ion batteries. Science Advances, 2018, 4, eaar6018.	4.7	341
20	Highâ€Capacity Cathode Material with High Voltage for Liâ€Ion Batteries. Advanced Materials, 2018, 30, 1705575.	11.1	333
21	Correlating Structural Changes and Gas Evolution during the Thermal Decomposition of Charged Li_{<i>x</i>}Ni_{0.8}Co_{0.15}Al_{0.05}O₂ Cathode Materials. Chemistry of Materials, 2013, 25, 337-351.	3.2	317
22	Ti-substituted tunnel-type Na0.44MnO2 oxide as a negative electrode for aqueous sodium-ion batteries. Nature Communications, 2015, 6, 6401.	5.8	316
23	A long-life lithium-ion battery with a highly porous TiNb₂O₇ anode for large-scale electrical energy storage. Energy and Environmental Science, 2014, 7, 2220-2226.	15.6	312
24	Structure-Induced Reversible Anionic Redox Activity in Na Layered Oxide Cathode. Joule, 2018, 2, 125-140.	11.7	311
25	Tiâ€Substituted NaNi_{0.5}Mn_{0.5â€‹}<i>_x</i>Ti<i>_x</i>O₂ Cathodes with Reversible O3âˆ’P3 Phase Transition for Highâ€Performance Sodiumâ€Ion Batteries. Advanced Materials, 2017, 29, 1700210.	11.1	309
26	Dynamic evolution of cathode electrolyte interphase (CEI) on high voltage LiCoO2 cathode and its interaction with Li anode. Energy Storage Materials, 2018, 14, 1-7.	9.5	307
27	Designing Air-Stable O3-Type Cathode Materials by Combined Structure Modulation for Na-Ion Batteries. Journal of the American Chemical Society, 2017, 139, 8440-8443.	6.6	303
28	Î±-MnO2 as a cathode material for rechargeable Mg batteries. Electrochemistry Communications, 2012, 23, 110-113.	2.3	292
29	Sodium iron hexacyanoferrate with high Na content as a Na-rich cathode material for Na-ion batteries. Nano Research, 2015, 8, 117-128.	5.8	292
30	Amorphous Hierarchical Porous GeO_{<i>x</i>} as High-Capacity Anodes for Li Ion Batteries with Very Long Cycling Life. Journal of the American Chemical Society, 2011, 133, 20692-20695.	6.6	288
31	Anionic Redox Reaction-Induced High-Capacity and Low-Strain Cathode with Suppressed Phase Transition. Joule, 2019, 3, 503-517.	11.7	262
32	In situ/operando synchrotron-based X-ray techniques for lithium-ion battery research. NPG Asia Materials, 2018, 10, 563-580.	3.8	261
33	Challenges and Recent Advances in High Capacity Liâ€Rich Cathode Materials for High Energy Density Lithiumâ€Ion Batteries. Advanced Materials, 2021, 33, e2005937.	11.1	253
34	Effects of Mg doping on the remarkably enhanced electrochemical performance of Na₃V₂(PO₄)₃ cathode materials for sodium ion batteries. Journal of Materials Chemistry A, 2015, 3, 9578-9586.	5.2	236
35	A Selfâ€Forming Composite Electrolyte for Solidâ€State Sodium Battery with Ultralong Cycle Life. Advanced Energy Materials, 2017, 7, 1601196.	10.2	231
36	A Size-Dependent Sodium Storage Mechanism in Li₄Ti₅O₁₂ Investigated by a Novel Characterization Technique Combining in Situ X-ray Diffraction and Chemical Sodiation. Nano Letters, 2013, 13, 4721-4727.	4.5	212

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37	Enabling Stable Cycling of 4.2 V Highâ€Voltage Allâ€Solidâ€State Batteries with PEOâ€Based Solid Electrolyte. Advanced Functional Materials, 2020, 30, 1909392.	7.8	204
38	An In Situ Formed Surface Coating Layer Enabling LiCoO₂ with Stable 4.6 V Highâ€Voltage Cycle Performances. Advanced Energy Materials, 2020, 10, 2001413.	10.2	201
39	The Thermal Stability of Lithium Solid Electrolytes with Metallic Lithium. Joule, 2020, 4, 812-821.	11.7	197
40	Increasing Poly(ethylene oxide) Stability to 4.5 V by Surface Coating of the Cathode. ACS Energy Letters, 2020, 5, 826-832.	8.8	192
41	Investigations on the Fundamental Process of Cathode Electrolyte Interphase Formation and Evolution of High-Voltage Cathodes. ACS Applied Materials & Interfaces, 2020, 12, 2319-2326.	4.0	186
42	Tuning chargeâ€“discharge induced unit cell breathing in layer-structured cathode materials for lithium-ion batteries. Nature Communications, 2014, 5, 5381.	5.8	180
43	Direct Observation of Sulfur Radicals as Reaction Media in Lithium Sulfur Batteries. Journal of the Electrochemical Society, 2015, 162, A474-A478.	1.3	178
44	Interfaces Between Cathode and Electrolyte in Solid State Lithium Batteries: Challenges and Perspectives. Frontiers in Chemistry, 2018, 6, 616.	1.8	175
45	Reconstructed Orthorhombic V2O5 Polyhedra for Fast Ion Diffusion in K-Ion Batteries. CheM, 2019, 5, 168-179.	5.8	174
46	Lithium storage performance in ordered mesoporous MoS2 electrode material. Microporous and Mesoporous Materials, 2012, 151, 418-423.	2.2	173
47	Chemomechanical interplay of layered cathode materials undergoing fast charging in lithium batteries. Nano Energy, 2018, 53, 753-762.	8.2	173
48	Nanocrystalline MnO thin film anode for lithium ion batteries with low overpotential. Electrochemistry Communications, 2009, 11, 791-794.	2.3	170
49	Naâ€Ion Intercalation and Charge Storage Mechanism in 2D Vanadium Carbide. Advanced Energy Materials, 2017, 7, 1700959.	10.2	168
50	Enhanced Li+ ion transport in LiNi0.5Mn1.5O4 through control of site disorder. Physical Chemistry Chemical Physics, 2012, 14, 13515.	1.3	167
51	Visualizing non-equilibrium lithiation of spinel oxide via in situ transmission electron microscopy. Nature Communications, 2016, 7, 11441.	5.8	162
52	A Novel High Capacity Positive Electrode Material with Tunnelâ€Type Structure for Aqueous Sodiumâ€Ion Batteries. Advanced Energy Materials, 2015, 5, 1501005.	10.2	161
53	In situ Visualization of State-of-Charge Heterogeneity within a LiCoO₂ Particle that Evolves upon Cycling at Different Rates. ACS Energy Letters, 2017, 2, 1240-1245.	8.8	159
54	Insight into the Atomic Structure of High-Voltage Spinel LiNi_{0.5}Mn_{1.5}O₄ Cathode Material in the First Cycle. Chemistry of Materials, 2015, 27, 292-303.	3.2	151

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55	Machine-learning-revealed statistics of the particle-carbon/binder detachment in lithium-ion battery cathodes. Nature Communications, 2020, 11, 2310.	5.8	143
56	In Situ Atomic-Scale Observation of Electrochemical Delithiation Induced Structure Evolution of LiCoO₂ Cathode in a Working All-Solid-State Battery. Journal of the American Chemical Society, 2017, 139, 4274-4277.	6.6	142
57	Exposing {010} Active Facets by Multipleâ€Layer Oriented Stacking Nanosheets for Highâ€Performance Capacitive Sodiumâ€Ion Oxide Cathode. Advanced Materials, 2018, 30, e1803765.	11.1	142
58	A P2/P3 composite layered cathode for high-performance Na-ion full batteries. Nano Energy, 2019, 55, 143-150.	8.2	142
59	Electrochemical properties of P2-phase Na0.74CoO2 compounds as cathode material for rechargeable sodium-ion batteries. Electrochimica Acta, 2013, 87, 388-393.	2.6	140
60	Surface-protected LiCoO2 with ultrathin solid oxide electrolyte film for high-voltage lithium ion batteries and lithium polymer batteries. Journal of Power Sources, 2018, 388, 65-70.	4.0	139
61	A highly reversible, low-strain Mg-ion insertion anode material for rechargeable Mg-ion batteries. NPG Asia Materials, 2014, 6, e120-e120.	3.8	130
62	TiS2 as a high performance potassium ion battery cathode in ether-based electrolyte. Energy Storage Materials, 2018, 12, 216-222.	9.5	129
63	Al₂O₃ surface coating on LiCoO₂ through a facile and scalable wet-chemical method towards high-energy cathode materials withstanding high cutoff voltages. Journal of Materials Chemistry A, 2017, 5, 24361-24370.	5.2	127
64	Homogeneous Interface Conductivity for Lithium Dendrite-Free Anode. ACS Energy Letters, 2018, 3, 2259-2266.	8.8	124
65	Sodiation Kinetics of Metal Oxide Conversion Electrodes: A Comparative Study with Lithiation. Nano Letters, 2015, 15, 5755-5763.	4.5	122
66	Advanced Characterization Techniques for Sodiumâ€Ion Battery Studies. Advanced Energy Materials, 2018, 8, 1702588.	10.2	122
67	Boron-doped sodium layered oxide for reversible oxygen redox reaction in Na-ion battery cathodes. Nature Communications, 2021, 12, 5267.	5.8	122
68	Shape evolution of patterned amorphous and polycrystalline silicon microarray thin film electrodes caused by lithium insertion and extraction. Journal of Power Sources, 2012, 216, 131-138.	4.0	117
69	Stabilizing the Oxygen Lattice and Reversible Oxygen Redox Chemistry through Structural Dimensionality in Lithiumâ€Rich Cathode Oxides. Angewandte Chemie - International Edition, 2019, 58, 4323-4327.	7.2	114
70	Tuning the electrochemical performances of anthraquinone organic cathode materials for Li-ion batteries through the sulfonic sodium functional group. RSC Advances, 2014, 4, 19878-19882.	1.7	110
71	Highâ€Rate Charging Induced Intermediate Phases and Structural Changes of Layerâ€Structured Cathode for Lithiumâ€Ion Batteries. Advanced Energy Materials, 2016, 6, 1600597.	10.2	110
72	Controlling Li deposition below the interface. EScience, 2022, 2, 47-78.	25.0	110

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73	An Abnormal 3.7â€…Volt O3â€Type Sodiumâ€Ion Battery Cathode. Angewandte Chemie - International Edition, 2018, 57, 8178-8183.	7.2	109
74	In-situ visualization of lithium plating in all-solid-state lithium-metal battery. Nano Energy, 2019, 63, 103895.	8.2	109
75	Wholeâ€Voltageâ€Range Oxygen Redox in P2â€Layered Cathode Materials for Sodiumâ€Ion Batteries. Advanced Materials, 2021, 33, e2008194.	11.1	108
76	Feasibility of Using Li₂MoO₃ in Constructing Li-Rich High Energy Density Cathode Materials. Chemistry of Materials, 2014, 26, 3256-3262.	3.2	106
77	Local structure adaptability through multi cations for oxygen redox accommodation in Li-Rich layered oxides. Energy Storage Materials, 2020, 24, 384-393.	9.5	101
78	Transitions from Near-Surface to Interior Redox upon Lithiation in Conversion Electrode Materials. Nano Letters, 2015, 15, 1437-1444.	4.5	97
79	O3-type layered transition metal oxide Na(NiCoFeTi)_{1/4}O₂ as a high rate and long cycle life cathode material for sodium ion batteries. Journal of Materials Chemistry A, 2015, 3, 23261-23267.	5.2	95
80	Structural and mechanistic revelations on high capacity cation-disordered Li-rich oxides for rechargeable Li-ion batteries. Energy Storage Materials, 2019, 16, 354-363.	9.5	94
81	Electrochemical decomposition of Li2CO3 in NiOâ€"Li2CO3 nanocomposite thin film and powder electrodes. Journal of Power Sources, 2012, 218, 113-118.	4.0	93
82	Lithium metal batteries capable of stable operation at elevated temperature. Energy Storage Materials, 2019, 23, 646-652.	9.5	87
83	Phase transition behavior of NaCrO2 during sodium extraction studied by synchrotron-based X-ray diffraction and absorption spectroscopy. Journal of Materials Chemistry A, 2013, 1, 11130.	5.2	84
84	Direct Observation of the Redistribution of Sulfur and Polysufides in Liâ€"S Batteries During the First Cycle by In Situ Xâ€Ray Fluorescence Microscopy. Advanced Energy Materials, 2015, 5, 1500072.	10.2	84
85	Excellent Comprehensive Performance of Naâ€Based Layered Oxide Benefiting from the Synergetic Contributions of Multimetal Ions. Advanced Energy Materials, 2017, 7, 1700189.	10.2	82
86	Advanced Characterization Techniques in Promoting Mechanism Understanding for Lithiumâ€"Sulfur Batteries. Advanced Functional Materials, 2018, 28, 1707543.	7.8	81
87	Electro-plating and stripping behavior on lithium metal electrode with ordered three-dimensional structure. Nano Energy, 2018, 45, 463-470.	8.2	81
88	Dualâ€Defects Adjusted Crystalâ€Field Splitting of LaCo_{1âˆ'<i>x</i>}Ni_{<i>x</i>}O_{3âˆ'<i>Î´</i>}Hollow Multishelled Structures for Efficient Oxygen Evolution. Angewandte Chemie - International Edition, 2020, 59, 19691-19695.	7.2	80
89	Mitigating the Kinetic Hindrance of Singleâ€Crystalline Niâ€Rich Cathode via Surface Gradient Penetration of Tantalum. Angewandte Chemie - International Edition, 2021, 60, 26535-26539.	7.2	80
90	Probing the Complexities of Structural Changes in Layered Oxide Cathode Materials for Li-Ion Batteries during Fast Chargeâ€"Discharge Cycling and Heating. Accounts of Chemical Research, 2018, 51, 290-298.	7.6	78

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91	4.2Ââ€‹V poly(ethylene oxide)-based all-solid-state lithium batteries with superior cycle and safety performance. Energy Storage Materials, 2020, 32, 191-198.	9.5	77
92	Liâ€“Ti Cation Mixing Enhanced Structural and Performance Stability of Liâ€Rich Layered Oxide. Advanced Energy Materials, 2019, 9, 1901530.	10.2	76
93	Oxygen-Release-Related Thermal Stability and Decomposition Pathways of Li_{<i>x</i>}Ni_{0.5}Mn_{1.5}O₄ Cathode Materials. Chemistry of Materials, 2014, 26, 1108-1118.	3.2	75
94	Hierarchical Defect Engineering for LiCoO2 through Low-Solubility Trace Element Doping. CheM, 2020, 6, 2759-2769.	5.8	74
95	Effects of structural defects on the electrochemical activation of Li2MnO3. Nano Energy, 2015, 16, 143-151.	8.2	73
96	Honeycomb-Ordered Na₃Ni_{1.5}M_{0.5}BiO₆ (M = Ni, Cu,) Tj ETQq0 0 0 rgBT /Overlock 2715-2722.	8.8	70
97	Ionic Conduction in Cubic Na₃TiP₃O₉N, a Secondary Na-Ion Battery Cathode with Extremely Low Volume Change. Chemistry of Materials, 2014, 26, 3295-3305.	3.2	68
98	Safe Lithiumâ€Metal Anodes for Liâˆ’O₂ Batteries: From Fundamental Chemistry to Advanced Characterization and Effective Protection. Batteries and Supercaps, 2019, 2, 638-658.	2.4	67
99	An Ordered Ni₆â€Ring Superstructure Enables a Highly Stable Sodium Oxide Cathode. Advanced Materials, 2019, 31, e1903483.	11.1	65
100	Explore the Effects of Microstructural Defects on Voltage Fade of Li- and Mn-Rich Cathodes. Nano Letters, 2016, 16, 5999-6007.	4.5	64
101	Stabilizing Cathode Materials of Lithium-Ion Batteries by Controlling Interstitial Sites on the Surface. CheM, 2018, 4, 1685-1695.	5.8	63
102	Amorphous anion-rich titanium polysulfides for aluminum-ion batteries. Science Advances, 2021, 7, .	4.7	63
103	Reversible lithium storage in LiF/Ti nanocomposites. Physical Chemistry Chemical Physics, 2009, 11, 9497.	1.3	61
104	Anomalous metal segregation in lithium-rich material provides design rules for stable cathode in lithium-ion battery. Nature Communications, 2019, 10, 1650.	5.8	60
105	Mn Ion Dissolution Mechanism for Lithium-Ion Battery with LiMn₂O₄ Cathode: <i>In Situ</i> Ultravioletâ€“Visible Spectroscopy and <i>Ab Initio</i> Molecular Dynamics Simulations. Journal of Physical Chemistry Letters, 2020, 11, 3051-3057.	2.1	60
106	Sub-nanometric Manganous Oxide Clusters in Nitrogen Doped Mesoporous Carbon Nanosheets for High-Performance Lithiumâ€“Sulfur Batteries. Nano Letters, 2021, 21, 700-708.	4.5	60
107	FeO_{0.7}F_{1.3}/C Nanocomposite as a Highâ€Capacity Cathode Material for Sodiumâ€Ion Batteries. Advanced Functional Materials, 2015, 25, 696-703.	7.8	59
108	Decreasing transition metal triggered oxygen redox activity in Na-deficient oxides. Energy Storage Materials, 2019, 20, 395-400.	9.5	58

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109	Probing Reversible Multielectron Transfer and Structure Evolution of Li_{1.2}Cr_{0.4}Mn_{0.4}O₂ Cathode Material for Li-Ion Batteries in a Voltage Range of 1.0â€"4.8 V. Chemistry of Materials, 2015, 27, 5238-5252.	3.2	57
110	Realizing long-term cycling stability and superior rate performance of 4.5ÂVâ€"LiCoO2 by aluminum doped zinc oxide coating achieved by a simple wet-mixing method. Journal of Power Sources, 2020, 470, 228423.	4.0	57
111	Oxygen-redox reactions in LiCoO2 cathode without Oâ€"O bonding during charge-discharge. Joule, 2021, 5, 720-736.	11.7	56
112	Quantitative Chromatographic Determination of Dissolved Elemental Sulfur in the Non-Aqueous Electrolyte for Lithium-Sulfur Batteries. Journal of the Electrochemical Society, 2015, 162, A203-A206.	1.3	55
113	Suppressing the voltage decay of low-cost P2-type iron-based cathode materials for sodium-ion batteries. Journal of Materials Chemistry A, 2018, 6, 20795-20803.	5.2	54
114	High rate delithiation behaviour of LiFePO4 studied by quick X-ray absorption spectroscopy. Chemical Communications, 2012, 48, 11537.	2.2	53
115	Gaseous electrolyte additive BF3 for high-power Li/CFx primary batteries. Energy Storage Materials, 2021, 38, 482-488.	9.5	52
116	Quantification of Honeycomb Number-Type Stacking Faults: Application to Na₃Ni₂BiO₆ Cathodes for Na-Ion Batteries. Inorganic Chemistry, 2016, 55, 8478-8492.	1.9	51
117	Size effect on the growth and pulverization behavior of Si nanodomains in SiO anode. Nano Energy, 2020, 78, 105101.	8.2	51
118	Low-temperature fusion fabrication of Li-Cu alloy anode with in situ formed 3D framework of inert LiCu nanowires for excellent Li storage performance. Science Bulletin, 2020, 65, 1907-1915.	4.3	50
119	Remarkably Improved Electrode Performance of Bulk MnS by Forming a Solid Solution with FeS â€" Understanding the Li Storage Mechanism. Advanced Functional Materials, 2014, 24, 5557-5566.	7.8	49
120	Insights of the anionic redox in P2â€"Na0.67Ni0.33Mn0.67O2. Nano Energy, 2020, 78, 105285.	8.2	49
121	Suppression of Monoclinic Phase Transitions of O3-Type Cathodes Based on Electronic Delocalization for Na-Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 22067-22073.	4.0	48
122	Surface-to-Bulk Redox Coupling through Thermally Driven Li Redistribution in Li- and Mn-Rich Layered Cathode Materials. Journal of the American Chemical Society, 2019, 141, 12079-12086.	6.6	47
123	Structural integrityâ€"Searching the key factor to suppress the voltage fade of Li-rich layered cathode materials through 3D X-ray imaging and spectroscopy techniques. Nano Energy, 2016, 28, 164-171.	8.2	44
124	Topologically protected oxygen redox in a layered manganese oxide cathode for sustainable batteries. Nature Sustainability, 2022, 5, 214-224.	11.5	44
125	Li-storage in LiFe1/4Mn1/4Co1/4Ni1/4PO4 solid solution. Electrochemistry Communications, 2008, 10, 1347-1350.	2.3	43
126	Quantitative and Qualitative Determination of Polysulfide Species in the Electrolyte of a Lithiumâ€"Sulfur Battery using HPLC ESI/MS with Oneâ€Step Derivatization. Advanced Energy Materials, 2015, 5, 1401888.	10.2	43

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127	A stabilized PEO-based solid electrolyte <i>via</i> a facile interfacial engineering method for a high voltage solid-state lithium metal battery. Chemical Communications, 2020, 56, 5633-5636.	2.2	43
128	Finding a Needle in the Haystack: Identification of Functionally Important Minority Phases in an Operating Battery. Nano Letters, 2017, 17, 7782-7788.	4.5	42
129	A dual-phase Liâ€“Ca alloy with a patternable and lithiophilic 3D framework for improving lithium anode performance. Journal of Materials Chemistry A, 2019, 7, 22377-22384.	5.2	42
130	Correlations between Transition-Metal Chemistry, Local Structure, and Global Structure in Li₂Ru_{0.5}Mn_{0.5}O₃ Investigated in a Wide Voltage Window. Chemistry of Materials, 2017, 29, 9053-9065.	3.2	40
131	Electrochemical performance of LiFePO4 thin films with different morphology and crystallinity. Electrochimica Acta, 2009, 54, 6565-6569.	2.6	38
132	Coordination-Assisted Precise Construction of Metal Oxide Nanofilms for High-Performance Solid-State Batteries. Journal of the American Chemical Society, 2022, 144, 2179-2188.	6.6	38
133	A new in situ synchrotron X-ray diffraction technique to study the chemical delithiation of LiFePO4. Chemical Communications, 2011, 47, 7170.	2.2	36
134	Na10SnSb2S12: A nanosized air-stable solid electrolyte for all-solid-state sodium batteries. Chemical Engineering Journal, 2021, 420, 127692.	6.6	36
135	Utilizing Environmental Friendly Iron as a Substitution Element in Spinel Structured Cathode Materials for Safer High Energy Lithiumâ€Ion Batteries. Advanced Energy Materials, 2016, 6, 1501662.	10.2	35
136	Overpotential and electrochemical impedance analysis on Cr2O3 thin film and powder electrode in rechargeable lithium batteries. Solid State Ionics, 2008, 179, 2390-2395.	1.3	34
137	Depth-dependent valence stratification driven by oxygen redox in lithium-rich layered oxide. Nature Communications, 2020, 11, 6342.	5.8	34
138	Solid Polymer Electrolyte Reinforced with a Li_{1.3}Al_{0.3}Ti_{1.7}(PO₄)₃-Coated Separator for All-Solid-State Lithium Batteries. ACS Applied Materials & Interfaces, 2022, 14, 1195-1202.	4.0	33
139	Releasing oxygen from the bulk. Nature Energy, 2021, 6, 572-573.	19.8	32
140	The role of structural defects in commercial lithium-ion batteries. Cell Reports Physical Science, 2021, 2, 100554.	2.8	32
141	Neutron-based characterization techniques for lithium-ion battery research. Chinese Physics B, 2020, 29, 018201.	0.7	31
142	Raising the Intrinsic Safety of Layered Oxide Cathodes by Surface Reâ€Lithiation with LLZTO Garnetâ€Type Solid Electrolytes. Advanced Materials, 2022, 34, e2200655.	11.1	30
143	Needle-like LiFePO4 thin films prepared by an off-axis pulsed laser deposition technique. Thin Solid Films, 2009, 517, 2618-2622.	0.8	29
144	Enhancing the Thermal Stability of NASICON Solid Electrolyte Pellets against Metallic Lithium by Defect Modification. ACS Applied Materials & Interfaces, 2021, 13, 18743-18749.	4.0	29

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145	Enhancing cycle stability of Li metal anode by using polymer separators coated with Ti-containing solid electrolytes. Rare Metals, 2021, 40, 1357-1365.	3.6	27
146	Structural and chemical evolution in layered oxide cathodes of lithium-ion batteries revealed by synchrotron techniques. National Science Review, 2022, 9, nwab146.	4.6	27
147	Si-Cu Thin Film Electrode with Kirkendall Voids Structure for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2012, 159, A2076-A2081.	1.3	26
148	High-capacity lithium-rich cathode oxides with multivalent cationic and anionic redox reactions for lithium ion batteries. Science China Chemistry, 2017, 60, 1483-1493.	4.2	26
149	Electrochromic Behavior of Transparent Li[sub 4]Ti[sub 5]O[sub 12]/FTO Electrode. Electrochemical and Solid-State Letters, 2010, 13, J99.	2.2	24
150	Interplay between two-phase and solid solution reactions in high voltage spinel cathode material for lithium ion batteries. Journal of Power Sources, 2013, 242, 736-741.	4.0	24
151	Divalent Iron Nitridophosphates: A New Class of Cathode Materials for Li-Ion Batteries. Chemistry of Materials, 2013, 25, 3929-3931.	3.2	23
152	An Abnormal 3.7â€…Volt O3â€Type Sodiumâ€Ion Battery Cathode. Angewandte Chemie, 2018, 130, 8310-8315.	1.6	23
153	Stacking Faults Hinder Lithium Insertion in Li₂RuO₃. Advanced Energy Materials, 2020, 10, 2002631.	10.2	22
154	<i>In situ</i> synthesis of a nickel concentration gradient structure of Ni-rich LiNi_{0.8}Co_{0.15}Al_{0.05}O₂ with promising superior electrochemical properties at high cut-off voltage. Nanoscale, 2020, 12, 11182-11191.	2.8	22
155	Exploiting the synergistic effects of multiple components with a uniform design method for developing low-temperature electrolytes. Energy Storage Materials, 2022, 50, 598-605.	9.5	22
156	The Role of Electron Localization in Covalency and Electrochemical Properties of Lithiumâ€Ion Battery Cathode Materials. Advanced Functional Materials, 2021, 31, 2001633.	7.8	21
157	<i>In Situ</i> Neutron Diffraction Studies of the Ion Exchange Synthesis Mechanism of Li₂Mg₂P₃O₉N: Evidence for a Hidden Phase Transition. Journal of the American Chemical Society, 2017, 139, 9192-9202.	6.6	19
158	Fast Li Plating Behavior Probed by X-ray Computed Tomography. Nano Letters, 2021, 21, 5254-5261.	4.5	19
159	Anomalous Thermal Decomposition Behavior of Polycrystalline LiNi_{0.8}Mn_{0.1}Co_{0.1}O₂ in PEOâ€Based Solid Polymer Electrolyte. Advanced Functional Materials, 2022, 32, .	7.8	19
160	Triplite LiFeSO4F as cathode material for Li-ion batteries. Journal of Power Sources, 2013, 244, 716-720.	4.0	18
161	First-Principles Simulations for the Surface Evolution and Mn Dissolution in the Fully Delithiated Spinel LiMn₂O₄. Langmuir, 2021, 37, 5252-5259.	1.6	17
162	Improved electrochemical performance of Li(Ni_{0.6}Co_{0.2}Mn_{0.2})O₂ at high charging cut-off voltage with Li_{1.4}Al_{0.4}Ti_{1.6}(PO₄)₃ surface coating*. Chinese Physics B, 2019, 28, 068202.	0.7	16

#	Article	IF	Citations
163	A high-performance rechargeable Liâ€“O ₂ battery with quasi-solid-state electrolyte. Chinese Physics B, 2018, 27, 078201.	0.7	14
164	Reaction Mechanisms of Ta-Substituted Cubic Li₇La₃Zr₂O₁₂ with Solvents During Storage. ACS Applied Materials & Interfaces, 2021, 13, 38384-38393.	4.0	14
165	Mitigating the Kinetic Hindrance of Singleâ€Crystalline Niâ€Rich Cathode via Surface Gradient Penetration of Tantalum. Angewandte Chemie, 2021, 133, 26739-26743.	1.6	14
166	Screening LiMn₂O₄ Surface Modification Schemes under Theoretical Guidance. ACS Applied Materials & Interfaces, 2022, 14, 10353-10362.	4.0	14
167	Strategies to curb structural changes of lithium/transition metal oxide cathode materials & the changesâ€™ effects on thermal & cycling stability. Chinese Physics B, 2016, 25, 018205.	0.7	13
168	Stabilizing the Oxygen Lattice and Reversible Oxygen Redox Chemistry through Structural Dimensionality in Lithiumâ€Rich Cathode Oxides. Angewandte Chemie, 2019, 131, 4367-4371.	1.6	13
169	Local spring effect in titanium-based layered oxides. Energy and Environmental Science, 2020, 13, 4371-4380.	15.6	13
170	Improved electrochemical performances of high voltage LiCoO₂ with tungsten doping. Chinese Physics B, 2018, 27, 088202.	0.7	12
171	Quantifying redox heterogeneity in single-crystalline LiCoO₂ cathode particles. Journal of Synchrotron Radiation, 2020, 27, 713-719.	1.0	12
172	Exploring reaction dynamics in lithiumâ€“sulfur batteries by time-resolved <i>operando</i> sulfur K-edge X-ray absorption spectroscopy. Chemical Communications, 2019, 55, 4993-4996.	2.2	9
173	In Situ X-ray Absorption Near-Edge Structure Calculation and Machine Learning Analysis of the Structural Evolution in Lithium-Ion Battery Cathode Materials. Journal of Physical Chemistry C, 2021, 125, 18979-18987.	1.5	8
174	In Situ Visualization of Li-Whisker with Grating-Interferometry-Based Tricontrast X-ray Microtomography. , 2021, 3, 1786-1792.		8
175	Cathode Materials: Combining In Situ Synchrotron Xâ€Ray Diffraction and Absorption Techniques with Transmission Electron Microscopy to Study the Origin of Thermal Instability in Overcharged Cathode Materials for Lithiumâ€Ion Batteries (Adv. Funct. Mater. 8/2013). Advanced Functional Materials, 2013, 23, 1046-1046.	7.8	7
176	Probing lattice defects in crystalline battery cathode using hard X-ray nanoprobe with data-driven modeling. Energy Storage Materials, 2022, 45, 647-655.	9.5	7
177	All-in-One Ionicâ€“Electronic Dual-Carrier Conducting Framework Thickening All-Solid-State Electrode. ACS Energy Letters, 2022, 7, 766-772.	8.8	7
178	A facile electrode preparation method for accurate electrochemical measurements of double-side-coated electrode from commercial Li-ion batteries. Journal of Power Sources, 2018, 384, 172-177.	4.0	6
179	Influence of carbon coating on the electrochemical performance of SiO@C/graphite composite anode materials*. Chinese Physics B, 2019, 28, 068201.	0.7	6
180	Suppressing transition metal dissolution and deposition in lithium-ion batteries using oxide solid electrolyte coated polymer separator*. Chinese Physics B, 2020, 29, 088201.	0.7	6

#	ARTICLE	IF	CITATIONS
181	Dualâ€Defects Adjusted Crystalâ€Field Splitting of LaCo_{1âˆ’<i>x</i>}Ni_{<i>x</i>}O_{3âˆ’<i>Î´</i>}Hollow Multishelled Structures for Efficient Oxygen Evolution. Angewandte Chemie, 2020, 132, 19859-19863.	1.6	5
182	Characterization Techniques for Lithium Metal Anodes at Multiple Spatial Scales. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2020, .	2.2	4
183	Anionic Redox Reaction-Induced High-Capacity and Low-Strain Cathode with Suppressed Phase Transition. Joule, 2019, 3, 612.	11.7	3
184	Challenges and Recent Advances in High Capacity Liâ€Rich Cathode Materials for High Energy Density Lithiumâ€Ion Batteries (Adv. Mater. 50/2021). Advanced Materials, 2021, 33, .	11.1	3
185	Synergistic Effect of Temperature and Electrolyte Concentration on Solidâ€State Interphase for Highâ€Performance Lithium Metal Batteries. Advanced Energy and Sustainability Research, 2021, 2, 2100010.	2.8	2
186	Artificial solid electrolyte interphase based on polyacrylonitrile for homogenous and dendrite-free deposition of lithium metal. Chinese Physics B, 2019, 28, 078202.	0.7	1
187	Sodiumâ€Ion Batteries: FeO_{0.7}F_{1.3}/C Nanocomposite as a Highâ€Capacity Cathode Material for Sodiumâ€Ion Batteries (Adv. Funct. Mater. 5/2015). Advanced Functional Materials, 2015, 25, 823-823.	7.8	0
188	Synchrotron Radiation Nanoscale X-ray Imaging Technology And Scientific Big Data Mining Assist Energy Materials Research. Microscopy and Microanalysis, 2018, 24, 542-543.	0.2	0
189	Advanced Transmission X-ray Microscopy for Energy Materials and Devices. , 2021, , 45-64.		0
190	Structural Evolution of Spinel Iron Oxide during Nonequilibrium Lithiation. ECS Meeting Abstracts, 2016, , .	0.0	0