Chongmin Wang

List of Publications by Year
in descending order

438 papers	51,626 citations	863 117 h-index	1820 210 g-index
440 all docs	440 docs citations	440 times ranked	38828 citing authors

#	Article	IF	Citations
1	Self-Assembled TiO₂â€"Graphene Hybrid Nanostructures for Enhanced Li-Ion Insertion. ACS Nano, 2009, 3, 907-914.	7.3	1,596
2	A Yolk-Shell Design for Stabilized and Scalable Li-Ion Battery Alloy Anodes. Nano Letters, 2012, 12, 3315-3321.	4.5	1,587
3	Single Atomic Iron Catalysts for Oxygen Reduction in Acidic Media: Particle Size Control and Thermal Activation. Journal of the American Chemical Society, 2017, 139, 14143-14149.	6.6	1,215
4	Mesoporous silicon sponge as an anti-pulverization structure for high-performance lithium-ion battery anodes. Nature Communications, 2014, 5, 4105.	5.8	1,160
5	Characterization and Properties of Metallic Iron Nanoparticles:Â Spectroscopy, Electrochemistry, and Kinetics. Environmental Science & Technology, 2005, 39, 1221-1230.	4.6	865
6	Facile and controllable electrochemical reduction of graphene oxide and its applications. Journal of Materials Chemistry, 2010, 20, 743-748.	6.7	787
7	Formation of the Spinel Phase in the Layered Composite Cathode Used in Li-Ion Batteries. ACS Nano, 2013, 7, 760-767.	7.3	772
8	In Situ TEM of Two-Phase Lithiation of Amorphous Silicon Nanospheres. Nano Letters, 2013, 13, 758-764.	4.5	680
9	Intragranular cracking as a critical barrier for high-voltage usage of layer-structured cathode for lithium-ion batteries. Nature Communications, 2017, 8, 14101.	5.8	654
10	Lewis Acidâ€"Base Interactions between Polysulfides and Metal Organic Framework in Lithium Sulfur Batteries. Nano Letters, 2014, 14, 2345-2352.	4.5	623
11	Monolithic solidâ€"electrolyte interphases formed in fluorinated orthoformate-based electrolytes minimize Li depletion and pulverization. Nature Energy, 2019, 4, 796-805.	19.8	621
12	Electrolyte design for LiF-rich solidâ€"electrolyte interfaces to enable high-performance microsized alloy anodes for batteries. Nature Energy, 2020, 5, 386-397.	19.8	621
13	Enhanced activity and stability of Pt catalysts on functionalized graphene sheets for electrocatalytic oxygen reduction. Electrochemistry Communications, 2009, 11, 954-957.	2.3	615
14	Tailoring grain boundary structures and chemistry of Ni-rich layered cathodes for enhanced cycle stability of lithium-ion batteries. Nature Energy, 2018, 3, 600-605.	19.8	613
15	Enabling High-Voltage Lithium-Metal Batteries under Practical Conditions. Joule, 2019, 3, 1662-1676.	11.7	598
16	Materials Science and Materials Chemistry for Large Scale Electrochemical Energy Storage: From Transportation to Electrical Grid. Advanced Functional Materials, 2013, 23, 929-946.	7.8	590
17	Studying the Kinetics of Crystalline Silicon Nanoparticle Lithiation with In Situ Transmission Electron Microscopy. Advanced Materials, 2012, 24, 6034-6041.	11.1	529
18	High-energy lithium metal pouch cells with limited anode swelling and long stable cycles. Nature Energy, 2019, 4, 551-559.	19.8	492

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19	Reversible planar gliding and microcracking in a single-crystalline Ni-rich cathode. Science, 2020, 370, 1313-1317.	6.0	472
20	Self-smoothing anode for achieving high-energy lithium metal batteries under realistic conditions. Nature Nanotechnology, 2019, 14, 594-601.	15.6	451
21	Controlling SEI Formation on SnSbâ€Porous Carbon Nanofibers for Improved Na Ion Storage. Advanced Materials, 2014, 26, 2901-2908.	11.1	441
22	High-Efficiency Lithium Metal Batteries with Fire-Retardant Electrolytes. Joule, 2018, 2, 1548-1558.	11.7	436
23	Glucose biosensor based on immobilization of glucose oxidase in platinum nanoparticles/graphene/chitosan nanocomposite film. Talanta, 2009, 80, 403-406.	2.9	416
24	Designing principle for Ni-rich cathode materials with high energy density for practical applications. Nano Energy, 2018, 49, 434-452.	8.2	400
25	Bismuth Nanoparticle Decorating Graphite Felt as a High-Performance Electrode for an All-Vanadium Redox Flow Battery. Nano Letters, 2013, 13, 1330-1335.	4.5	392
26	Stabilization of Electrocatalytic Metal Nanoparticles at Metalâˆ’Metal Oxideâˆ’Graphene Triple Junction Points. Journal of the American Chemical Society, 2011, 133, 2541-2547.	6.6	391
27	Liâ€•and Mnâ€Rich Cathode Materials: Challenges to Commercialization. Advanced Energy Materials, 2017, 7, 1601284.	10.2	383
28	Highly durable graphene nanoplatelets supported Pt nanocatalysts for oxygen reduction. Journal of Power Sources, 2010, 195, 4600-4605.	4.0	378
29	General synthesis of complex nanotubes by gradient electrospinning and controlled pyrolysis. Nature Communications, 2015, 6, 7402.	5.8	370
30	Critical Parameters for Evaluating Coin Cells and Pouch Cells of Rechargeable Li-Metal Batteries. Joule, 2019, 3, 1094-1105.	11.7	358
31	Corrosion/Fragmentation of Layered Composite Cathode and Related Capacity/Voltage Fading during Cycling Process. Nano Letters, 2013, 13, 3824-3830.	4.5	353
32	High-Performance Rh₂P Electrocatalyst for Efficient Water Splitting. Journal of the American Chemical Society, 2017, 139, 5494-5502.	6.6	343
33	SnO₂ Quantum Dots@Graphene Oxide as a Highâ€Rate and Longâ€Life Anode Material for Lithiumâ€Ion Batteries. Small, 2016, 12, 588-594.	5.2	338
34	Functioning Mechanism of AlF₃ Coating on the Li- and Mn-Rich Cathode Materials. Chemistry of Materials, 2014, 26, 6320-6327.	3.2	333
35	Harnessing the concurrent reaction dynamics in active Si and Ge to achieve high performance lithium-ion batteries. Energy and Environmental Science, 2018, 11, 669-681.	15.6	329
36	Advances in metalâ€“organic framework coatings: versatile synthesis and broad applications. Chemical Society Reviews, 2020, 49, 3142-3186.	18.7	327

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37	<i>In Situ</i> TEM Study of Lithiation Behavior of Silicon Nanoparticles Attached to and Embedded in a Carbon Matrix. ACS Nano, 2012, 6, 8439-8447.	7.3	321
38	Injection of oxygen vacancies in the bulk lattice of layered cathodes. Nature Nanotechnology, 2019, 14, 602-608.	15.6	321
39	Ni/Li Disordering in Layered Transition Metal Oxide: Electrochemical Impact, Origin, and Control. Accounts of Chemical Research, 2019, 52, 2201-2209.	7.6	315
40	Thiophene hydrodesulfurization over nickel phosphide catalysts: effect of the precursor composition and support. Journal of Catalysis, 2005, 231, 300-313.	3.1	313
41	Structural and Chemical Evolution of Li- and Mn-Rich Layered Cathode Material. Chemistry of Materials, 2015, 27, 1381-1390.	3.2	311
42	Nitrogen-doped mesoporous carbon for energy storage in vanadium redox flow batteries. Journal of Power Sources, 2010, 195, 4375-4379.	4.0	306
43	High-Concentration Ether Electrolytes for Stable High-Voltage Lithium Metal Batteries. ACS Energy Letters, 2019, 4, 896-902.	8.8	302
44	High Voltage Operation of Niâ€Rich NMC Cathodes Enabled by Stable Electrode/Electrolyte Interphases. Advanced Energy Materials, 2018, 8, 1800297.	10.2	298
45	Hierarchical porous silicon structures with extraordinary mechanical strength as high-performance lithium-ion battery anodes. Nature Communications, 2020, 11, 1474.	5.8	298
46	Kinetics Tuning of Li-Ion Diffusion in Layered Li(Ni_{<i>x</i>}Mn_{<i>y</i>}Co_{<i>z</i>})O₂. Journal of the American Chemical Society, 2015, 137, 8364-8367.	6.6	292
47	Balancing interfacial reactions to achieve long cycle life in high-energy lithium metal batteries. Nature Energy, 2021, 6, 723-732.	19.8	285
48	Hollow coreâ€“shell structured porous Siâ€“C nanocomposites for Li-ion battery anodes. Journal of Materials Chemistry, 2012, 22, 11014.	6.7	280
49	Real-time mass spectrometric characterization of the solidâ€“electrolyte interphase of a lithium-ion battery. Nature Nanotechnology, 2020, 15, 224-230.	15.6	280
50	Nanorod Niobium Oxide as Powerful Catalysts for an All Vanadium Redox Flow Battery. Nano Letters, 2014, 14, 158-165.	4.5	279
51	High temperature shockwave stabilized single atoms. Nature Nanotechnology, 2019, 14, 851-857.	15.6	278
52	Mitigating Voltage Fade in Cathode Materials by Improving the Atomic Level Uniformity of Elemental Distribution. Nano Letters, 2014, 14, 2628-2635.	4.5	273
53	Tailoring Pore Size of Nitrogenâ€Doped Hollow Carbon Nanospheres for Confining Sulfur in Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2015, 5, 1401752.	10.2	273
54	Recent Progress in Understanding Solid Electrolyte Interphase on Lithium Metal Anodes. Advanced Energy Materials, 2021, 11, 2003092.	10.2	271

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55	Probing the Failure Mechanism of SnO₂ Nanowires for Sodium-Ion Batteries. Nano Letters, 2013, 13, 5203-5211.	4.5	270
56	Hydrothermal Dehydration of Aqueous Fructose Solutions in a Closed System. Journal of Physical Chemistry C, 2007, 111, 15141-15145.	1.5	266
57	In Situ Transmission Electron Microscopy Observation of Microstructure and Phase Evolution in a SnO₂Nanowire during Lithium Intercalation. Nano Letters, 2011, 11, 1874-1880.	4.5	266
58	Demonstration of an Electrochemical Liquid Cell for Operando Transmission Electron Microscopy Observation of the Lithiation/Delithiation Behavior of Si Nanowire Battery Anodes. Nano Letters, 2013, 13, 6106-6112.	4.5	265
59	Evolution of Lattice Structure and Chemical Composition of the Surface Reconstruction Layer in Li_{1.2}Ni_{0.2}Mn_{0.6}O₂ Cathode Material for Lithium Ion Batteries. Nano Letters, 2015, 15, 514-522.	4.5	261
60	Highly Reversible Mg Insertion in Nanostructured Bi for Mg Ion Batteries. Nano Letters, 2014, 14, 255-260.	4.5	257
61	In Situ TEM Investigation of Congruent Phase Transition and Structural Evolution of Nanostructured Silicon/Carbon Anode for Lithium Ion Batteries. Nano Letters, 2012, 12, 1624-1632.	4.5	256
62	Highly Reversible Zinc-Ion Intercalation into Chevrel Phase Mo₆S₈ Nanocubes and Applications for Advanced Zinc-Ion Batteries. ACS Applied Materials & Interfaces, 2016, 8, 13673-13677.	4.0	256
63	Synthesis and Li-Ion Insertion Properties of Highly Crystalline Mesoporous Rutile TiO₂. Chemistry of Materials, 2008, 20, 3435-3442.	3.2	254
64	Helical Crystalline SiC/SiO2Coreâ˜Shell Nanowires. Nano Letters, 2002, 2, 941-944.	4.5	252
65	Highly Stable Operation of Lithium Metal Batteries Enabled by the Formation of a Transient Highâ€Concentration Electrolyte Layer. Advanced Energy Materials, 2016, 6, 1502151.	10.2	236
66	Conflicting Roles of Nickel in Controlling Cathode Performance in Lithium Ion Batteries. Nano Letters, 2012, 12, 5186-5191.	4.5	231
67	Nanoscale silicon as anode for Li-ion batteries: The fundamentals, promises, and challenges. Nano Energy, 2015, 17, 366-383.	8.2	228
68	Direct Conversion of Bio-ethanol to Isobutene on Nanosized Zn_{<i>x</i>}Zr_{<i>y</i>}O_{<i>z</i>} Mixed Oxides with Balanced Acidâ€"Base Sites. Journal of the American Chemical Society, 2011, 133, 11096-11099.	6.6	225
69	Morphology and Electronic Structure of the Oxide Shell on the Surface of Iron Nanoparticles. Journal of the American Chemical Society, 2009, 131, 8824-8832.	6.6	218
70	Inward lithium-ion breathing of hierarchically porous silicon anodes. Nature Communications, 2015, 6, 8844.	5.8	217
71	Effect of calcination temperature on the electrochemical properties of nickel-rich LiNi0.76Mn0.14Co0.10O2 cathodes for lithium-ion batteries. Nano Energy, 2018, 49, 538-548.	8.2	213
72	Iron oxideâ€"gold coreâ€"shell nanoparticles and thin film assembly. Journal of Materials Chemistry, 2005, 15, 1821.	6.7	211

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73	Origin of lithium whisker formation and growth under stress. Nature Nanotechnology, 2019, 14, 1042-1047.	15.6	211
74	Molecular structure and stability of dissolved lithium polysulfide species. Physical Chemistry Chemical Physics, 2014, 16, 10923-10932.	1.3	210
75	The passivity of lithium electrodes in liquid electrolytes for secondary batteries. Nature Reviews Materials, 2021, 6, 1036-1052.	23.3	201
76	Li⁺-Desolvation Dictating Lithium-Ion Batteryâ€™s Low-Temperature Performances. ACS Applied Materials & Interfaces, 2017, 9, 42761-42768.	4.0	200
77	Coupling of electrochemically triggered thermal and mechanical effects to aggravate failure in a layered cathode. Nature Communications, 2018, 9, 2437.	5.8	200
78	Synthesis, Characterization, and Manipulation of Helical SiO2 Nanosprings. Nano Letters, 2003, 3, 577-580.	4.5	198
79	A facile approach using MgCl2 to formulate high performance Mg2+ electrolytes for rechargeable Mg batteries. Journal of Materials Chemistry A, 2014, 2, 3430.	5.2	197
80	Role of inner solvation sheath within saltâ€“solvent complexes in tailoring electrode/electrolyte interphases for lithium metal batteries. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 28603-28613.	3.3	191
81	Lithium Ion Battery Peformance of Silicon Nanowires with Carbon Skin. ACS Nano, 2014, 8, 915-922.	7.3	185
82	Size-dependent dynamic structures of supported gold nanoparticles in CO oxidation reaction condition. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 7700-7705.	3.3	183
83	Tuning of Thermal Stability in Layered Li(Ni_{<i>x</i>}Mn_{<i>y</i>}Co_{<i>z</i>})O₂. Journal of the American Chemical Society, 2016, 138, 13326-13334.	6.6	178
84	Insights on the Mechanism of Na-Ion Storage in Soft Carbon Anode. Chemistry of Materials, 2017, 29, 2314-2320.	3.2	177
85	Highâ€Performance Silicon Anodes Enabled By Nonflammable Localized Highâ€Concentration Electrolytes. Advanced Energy Materials, 2019, 9, 1900784.	10.2	175
86	Ethanol synthesis from syngas over Rh-based/SiO2 catalysts: A combined experimental and theoretical modeling study. Journal of Catalysis, 2010, 271, 325-342.	3.1	174
87	Nanoscale Phase Separation, Cation Ordering, and Surface Chemistry in Pristine Li_{1.2}Ni_{0.2}Mn_{0.6}O₂for Li-Ion Batteries. Chemistry of Materials, 2013, 25, 2319-2326.	3.2	173
88	Preparation of Ultrafine Chalcopyrite Nanoparticles via the Photochemical Decomposition of Molecular Single-Source Precursors. Nano Letters, 2006, 6, 1218-1223.	4.5	164
89	Revealing the Atomic Restructuring of Ptâ€“Co Nanoparticles. Nano Letters, 2014, 14, 3203-3207.	4.5	162
90	Fe(II)-Catalyzed Recrystallization of Goethite Revisited. Environmental Science & Technology, 2014, 48, 11302-11311.	4.6	160

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91	Revealing the reaction mechanisms of Liâ€“O2 batteries using environmental transmission electron microscopy. Nature Nanotechnology, 2017, 12, 535-539.	15.6	160
92	Advanced Electrolytes for Fastâ€Charging Highâ€Voltage Lithiumâ€Ion Batteries in Wideâ€Temperature Range. Advanced Energy Materials, 2020, 10, 2000368.	10.2	159
93	A Direct Route toward Assembly of Nanoparticleâˆ’Carbon Nanotube Composite Materials. Langmuir, 2004, 20, 6019-6025.	1.6	158
94	Tuning the Solid Electrolyte Interphase for Selective Liâ€•and Naâ€Ion Storage in Hard Carbon. Advanced Materials, 2017, 29, 1606860.	11.1	157
95	The effect of metallic coatings and crystallinity on the volume expansion of silicon during electrochemical lithiation/delithiation. Nano Energy, 2012, 1, 401-410.	8.2	156
96	Strategies towards enabling lithium metal in batteries: interphases and electrodes. Energy and Environmental Science, 2021, 14, 5289-5314.	15.6	156
97	Wide-Temperature Electrolytes for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 18826-18835.	4.0	150
98	How to Obtain Reproducible Results for Lithium Sulfur Batteries?. Journal of the Electrochemical Society, 2013, 160, A2288-A2292.	1.3	149
99	Regulated Breathing Effect of Silicon Negative Electrode for Dramatically Enhanced Performance of Liâ€Ion Battery. Advanced Functional Materials, 2015, 25, 1426-1433.	7.8	149
100	Atomic Layer Deposition of the Solid Electrolyte Garnet Li₇La₃Zr₂O₁₂. Chemistry of Materials, 2017, 29, 3785-3792.	3.2	149
101	Progressive growth of the solidâ€“electrolyte interphase towards the Si anode interior causes capacity fading. Nature Nanotechnology, 2021, 16, 1113-1120.	15.6	147
102	Atomic Resolution Structural and Chemical Imaging Revealing the Sequential Migration of Ni, Co, and Mn upon the Battery Cycling of Layered Cathode. Nano Letters, 2017, 17, 3946-3951.	4.5	143
103	Nitrogenâ€“doped graphitized carbon shell encapsulated NiFe nanoparticles: A highly durable oxygen evolution catalyst. Nano Energy, 2017, 39, 245-252.	8.2	143
104	Design of porous Si/Câ€“graphite electrodes with long cycle stability and controlled swelling. Energy and Environmental Science, 2017, 10, 1427-1434.	15.6	140
105	High-quality mesoporous graphene particles as high-energy and fast-charging anodes for lithium-ion batteries. Nature Communications, 2019, 10, 1474.	5.8	140
106	Probing the Degradation Mechanisms in Electrolyte Solutions for Li-Ion Batteries by in Situ Transmission Electron Microscopy. Nano Letters, 2014, 14, 1293-1299.	4.5	137
107	Low-solvation electrolytes for high-voltage sodium-ion batteries. Nature Energy, 2022, 7, 718-725.	19.8	137
108	Electronic Origin for the Phase Transition from Amorphous Li_{<i>x</i>}Si to Crystalline Li₁₅Si₄. ACS Nano, 2013, 7, 6303-6309.	7.3	135

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109	Germanium as a Sodium Ion Battery Material: <i>In Situ</i> TEM Reveals Fast Sodiation Kinetics with High Capacity. Chemistry of Materials, 2016, 28, 1236-1242.	3.2	134
110	Effects of fluorinated solvents on electrolyte solvation structures and electrode/electrolyte interphases for lithium metal batteries. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	131
111	Probing the Degradation Mechanism of Li₂MnO₃ Cathode for Li-Ion Batteries. Chemistry of Materials, 2015, 27, 975-982.	3.2	130
112	Oneâ€Pot Process for Hydrodeoxygenation of Lignin to Alkanes Using Ruâ€Based Bimetallic and Bifunctional Catalysts Supported on Zeolite Y. ChemSusChem, 2017, 10, 1846-1856.	3.6	127
113	Tin-graphene tubes as anodes for lithium-ion batteries with high volumetric and gravimetric energy densities. Nature Communications, 2020, 11, 1374.	5.8	127
114	Factors affecting the battery performance of anthraquinone-based organic cathode materials. Journal of Materials Chemistry, 2012, 22, 4032.	6.7	126
115	Composition-Controlled Synthesis of Bimetallic Goldâˆ'Silver Nanoparticles. Langmuir, 2004, 20, 11240-11246.	1.6	125
116	Atomic to Nanoscale Investigation of Functionalities of an Al₂O₃ Coating Layer on a Cathode for Enhanced Battery Performance. Chemistry of Materials, 2016, 28, 857-863.	3.2	125
117	Yolk-shell structured Sb@C anodes for high energy Na-ion batteries. Nano Energy, 2017, 40, 504-511.	8.2	123
118	Designing Advanced In Situ Electrode/Electrolyte Interphases for Wide Temperature Operation of 4.5 V Li||LiCoO₂ Batteries. Advanced Materials, 2020, 32, e2004898.	11.1	123
119	Fluorescent dye encapsulated ZnO particles with cell-specific toxicity for potential use in biomedical applications. Journal of Materials Science: Materials in Medicine, 2009, 20, 11-22.	1.7	121
120	Nanocomposite polymer electrolyte for rechargeable magnesium batteries. Nano Energy, 2015, 12, 750-759.	8.2	121
121	Surface-Coating Regulated Lithiation Kinetics and Degradation in Silicon Nanowires for Lithium Ion Battery. ACS Nano, 2015, 9, 5559-5566.	7.3	118
122	Rock-Salt Growth-Induced (003) Cracking in a Layered Positive Electrode for Li-Ion Batteries. ACS Energy Letters, 2017, 2, 2607-2615.	8.8	116
123	Lattice doping regulated interfacial reactions in cathode for enhanced cycling stability. Nature Communications, 2019, 10, 3447.	5.8	116
124	Dual phase Li4Ti5O12â€"TiO2 nanowire arrays as integrated anodes for high-rate lithium-ion batteries. Nano Energy, 2014, 9, 383-391.	8.2	114
125	Graphene Oxide Wrapped Amorphous Copper Vanadium Oxide with Enhanced Capacitive Behavior for Highâ€Rate and Longâ€Life Lithiumâ€Ion Battery Anodes. Advanced Science, 2015, 2, 1500154.	5.6	114
126	Surface Coating Constraint Induced Self-Discharging of Silicon Nanoparticles as Anodes for Lithium Ion Batteries. Nano Letters, 2015, 15, 7016-7022.	4.5	113

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127	In situ transmission electron microscopy and spectroscopy studies of interfaces in Li ion batteries: Challenges and opportunities. Journal of Materials Research, 2010, 25, 1541-1547.	1.2	112
128	Nanosheet-structured LiV3O8 with high capacity and excellent stability for high energy lithium batteries. Journal of Materials Chemistry, 2011, 21, 10077.	6.7	112
129	Nonflammable Electrolytes for Lithium Ion Batteries Enabled by Ultraconformal Passivation Interphases. ACS Energy Letters, 2019, 4, 2529-2534.	8.8	112
130	Atomic-Resolution Visualization of Distinctive Chemical Mixing Behavior of Ni, Co, and Mn with Li in Layered Lithium Transition-Metal Oxide Cathode Materials. Chemistry of Materials, 2015, 27, 5393-5401.	3.2	108
131	In situ transmission electron microscopy and spectroscopy studies of rechargeable batteries under dynamic operating conditions: A retrospective and perspective view. Journal of Materials Research, 2015, 30, 326-339.	1.2	108
132	Following the Transient Reactions in Lithiumâ€“Sulfur Batteries Using an In Situ Nuclear Magnetic Resonance Technique. Nano Letters, 2015, 15, 3309-3316.	4.5	107
133	Toward the Solution Synthesis of the Tetrahedral Au20Cluster. Journal of Physical Chemistry B, 2004, 108, 12259-12263.	1.2	106
134	Atomic origins of water-vapour-promoted alloy oxidation. Nature Materials, 2018, 17, 514-518.	13.3	106
135	Template free synthesis of LiV₃O₈nanorods as a cathode material for high-rate secondary lithium batteries. Journal of Materials Chemistry, 2011, 21, 1153-1161.	6.7	105
136	Electrochemical Kinetics and Performance of Layered Composite Cathode Material Li[Li_{0.2}Ni_{0.2}Mn_{0.6}]O₂. Journal of the Electrochemical Society, 2013, 160, A2212-A2219.	1.3	104
137	Enhanced Cycling Stability of Rechargeable Liâ€“O₂ Batteries Using Highâ€Concentration Electrolytes. Advanced Functional Materials, 2016, 26, 605-613.	7.8	104
138	Complete Decomposition of Li₂CO₃ in Liâ€“O₂ Batteries Using Ir/B₄C as Noncarbon-Based Oxygen Electrode. Nano Letters, 2017, 17, 1417-1424.	4.5	104
139	The role of H2O in the carbonation of forsterite in supercritical CO2. International Journal of Greenhouse Gas Control, 2011, 5, 1081-1092.	2.3	103
140	Direction-specific van der Waals attraction between rutile TiO ₂ nanocrystals. Science, 2017, 356, 434-437.	6.0	103
141	Electrocatalytic Hydrogen Evolution in Neutral pH Solutions: Dual-Phase Synergy. ACS Catalysis, 2019, 9, 8712-8718.	5.5	103
142	Atomic to Nanoscale Origin of Vinylene Carbonate Enhanced Cycling Stability of Lithium Metal Anode Revealed by Cryo-Transmission Electron Microscopy. Nano Letters, 2020, 20, 418-425.	4.5	102
143	Ni and Co Segregations on Selective Surface Facets and Rational Design of Layered Lithium Transitionâ€Metal Oxide Cathodes. Advanced Energy Materials, 2016, 6, 1502455.	10.2	100
144	<i>In Situ</i> Transmission Electron Microscopy Probing of Native Oxide and Artificial Layers on Silicon Nanoparticles for Lithium Ion Batteries. ACS Nano, 2014, 8, 11816-11823.	7.3	99

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145	Iron Atom Exchange between Hematite and Aqueous Fe(II). Environmental Science & Technology, 2015, 49, 8479-8486.	4.6	99
146	Stabilization of Li Metal Anode in DMSOâ€Based Electrolytes via Optimization of Saltâ€"Solvent Coordination for Liâ€"O₂ Batteries. Advanced Energy Materials, 2017, 7, 1602605.	10.2	99
147	A Micrometerâ€Sized Silicon/Carbon Composite Anode Synthesized by Impregnation of Petroleum Pitch in Nanoporous Silicon. Advanced Materials, 2021, 33, e2103095.	11.1	99
148	Revisit Carbon/Sulfur Composite for Li-S Batteries. Journal of the Electrochemical Society, 2013, 160, A1624-A1628.	1.3	98
149	Highly Reversible Sodium Ion Batteries Enabled by Stable Electrolyte-Electrode Interphases. ACS Energy Letters, 2020, 5, 3212-3220.	8.8	97
150	Mechanical mismatch-driven rippling in carbon-coated silicon sheets for stress-resilient battery anodes. Nature Communications, 2018, 9, 2924.	5.8	94
151	Electronegative guests in CoSb₃. Energy and Environmental Science, 2016, 9, 2090-2098.	15.6	93
152	Bending-Induced Symmetry Breaking of Lithiation in Germanium Nanowires. Nano Letters, 2014, 14, 4622-4627.	4.5	92
153	Revealing Cycling Rate-Dependent Structure Evolution in Ni-Rich Layered Cathode Materials. ACS Energy Letters, 2018, 3, 2433-2440.	8.8	92
154	Investigation of ironâ€"chromiumâ€"niobiumâ€"titanium ferritic stainless steel for solid oxide fuel cell interconnect applications. Journal of Power Sources, 2008, 183, 660-667.	4.0	91
155	Formation of Reversible Solid Electrolyte Interface on Graphite Surface from Concentrated Electrolytes. Nano Letters, 2017, 17, 1602-1609.	4.5	91
156	Controlled Nucleation and Growth Process of Li₂S₂/Li₂S in Lithium-Sulfur Batteries. Journal of the Electrochemical Society, 2013, 160, A1992-A1996.	1.3	89
157	Simultaneous Stabilization of LiNi_{0.76}Mn_{0.14}Co_{0.10}O₂ Cathode and Lithium Metal Anode by Lithium Bis(oxalato)borate as Additive. ChemSusChem, 2018, 11, 2211-2220.	3.6	89
158	Interface Promoted Reversible Mg Insertion in Nanostructured Tinâ€"Antimony Alloys. Advanced Materials, 2015, 27, 6598-6605.	11.1	88
159	Realizing the Full Potential of Insertion Anodes for Mg-Ion Batteries Through the Nanostructuring of Sn. Nano Letters, 2015, 15, 1177-1182.	4.5	87
160	Ultrathin Li₄Ti₅O₁₂ Nanosheets as Anode Materials for Lithium and Sodium Storage. ACS Applied Materials & Interfaces, 2016, 8, 16718-16726.	4.0	87
161	Atomistic Conversion Reaction Mechanism of WO₃ in Secondary Ion Batteries of Li, Na, and Ca. Angewandte Chemie - International Edition, 2016, 55, 6244-6247.	7.2	86
162	Damage profile and ion distribution of slow heavy ions in compounds. Journal of Applied Physics, 2009, 105, .	1.1	85

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163	Uranium in Framboidal Pyrite from a Naturally Bioreduced Alluvial Sediment. Environmental Science & Technology, 2009, 43, 8528-8534.	4.6	85
164	Rapid synthesis and size control of CuInS2 semi-conductor nanoparticles using microwave irradiation. Journal of Nanoparticle Research, 2008, 10, 633-641.	0.8	82
165	Slip-activated surface creep with room-temperature super-elongation in metallicÂnanocrystals. Nature Materials, 2017, 16, 439-445.	13.3	82
166	Low-Temperature Synthesis of Tunable Mesoporous Crystalline Transition Metal Oxides and Applications as Au Catalyst Supports. Journal of Physical Chemistry C, 2008, 112, 13499-13509.	1.5	81
167	Tomography and High-Resolution Electron Microscopy Study of Surfaces and Porosity in a Plate-like î³-Al₂O₃. Journal of Physical Chemistry C, 2013, 117, 179-186.	1.5	81
168	Solidâ€"Liquid Interfacial Reaction Trigged Propagation of Phase Transition from Surface into Bulk Lattice of Ni-Rich Layered Cathode. Chemistry of Materials, 2018, 30, 7016-7026.	3.2	80
169	Changing Morphology of BaO/Al2O3during NO2Uptake and Release. Journal of Physical Chemistry B, 2005, 109, 7339-7344.	1.2	79
170	Noncovalently functionalized graphitic mesoporous carbon as a stable support of Pt nanoparticles for oxygen reduction. Journal of Power Sources, 2010, 195, 1805-1811.	4.0	78
171	XEDS STEM tomography for 3D chemical characterization of nanoscale particles. Ultramicroscopy, 2013, 131, 24-32.	0.8	78
172	From Ultrafine Thiolate-Capped Copper Nanoclusters toward Copper Sulfide Nanodiscs: A Thermally Activated Evolution Route. Chemistry of Materials, 2010, 22, 261-271.	3.2	77
173	Suppressed oxygen extraction and degradation of LiNi x Mn y Co z O2 cathodes at high charge cut-off voltages. Nano Research, 2017, 10, 4221-4231.	5.8	77
174	Direct Evidence of Lithium-Induced Atomic Ordering in Amorphous TiO₂ Nanotubes. Chemistry of Materials, 2014, 26, 1660-1669.	3.2	75
175	Interface modifications by anion receptors for high energy lithium ion batteries. Journal of Power Sources, 2014, 250, 313-318.	4.0	74
176	In situ observation of shear-driven amorphization in silicon crystals. Nature Nanotechnology, 2016, 11, 866-871.	15.6	74
177	Facile Synthesis of <i>Chevrel</i> Phase Nanocubes and Their Applications for Multivalent Energy Storage. Chemistry of Materials, 2014, 26, 4904-4907.	3.2	73
178	Observation of Electron-Beam-Induced Phase Evolution Mimicking the Effect of the Chargeâ€"Discharge Cycle in Li-Rich Layered Cathode Materials Used for Li Ion Batteries. Chemistry of Materials, 2015, 27, 1375-1380.	3.2	73
179	Effects of structural defects on the electrochemical activation of Li2MnO3. Nano Energy, 2015, 16, 143-151.	8.2	73
180	In Situ Mass Spectrometric Determination of Molecular Structural Evolution at the Solid Electrolyte Interphase in Lithium-Ion Batteries. Nano Letters, 2015, 15, 6170-6176.	4.5	73

#	Article	IF	Citations
181	Hard carbon coated nano-Si/graphite composite as a high performance anode for Li-ion batteries. Journal of Power Sources, 2016, 329, 323-329.	4.0	73
182	Thermal Induced Strain Relaxation of 1D Iron Oxide for Solid Electrolyte Interphase Control and Lithium Storage Improvement. Advanced Energy Materials, 2017, 7, 1601582.	10.2	73
183	Ligninâ€derived electrochemical energy materials and systems. Biofuels, Bioproducts and Biorefining, 2020, 14, 650-672.	1.9	73
184	Labile Fe(III) from sorbed Fe(II) oxidation is the key intermediate in Fe(II)-catalyzed ferrihydrite transformation. Geochimica Et Cosmochimica Acta, 2020, 272, 105-120.	1.6	72
185	Effects of Ba loading and calcination temperature on BaAl2O4 formation for BaO/Al2O3 NOx storage and reduction catalysts. Catalysis Today, 2006, 114, 86-93.	2.2	70
186	Advanced Lowâ€Flammable Electrolytes for Stable Operation of Highâ€Voltage Lithiumâ€Ion Batteries. Angewandte Chemie - International Edition, 2021, 60, 12999-13006.	7.2	70
187	Interfacial-engineering-enabled practical low-temperature sodium metal battery. Nature Nanotechnology, 2022, 17, 269-277.	15.6	69
188	Effect of nickel microstructure on methane steam-reforming activity of Niâ€"YSZ cermet anode catalyst. Journal of Catalysis, 2008, 258, 356-365.	3.1	67
189	High-performance anode based on porous Co3O4 nanodiscs. Journal of Power Sources, 2014, 255, 125-129.	4.0	67
190	Strong kinetics-stress coupling in lithiation of Si and Ge anodes. Extreme Mechanics Letters, 2015, 2, 1-6.	2.0	66
191	Optimized Al Doping Improves Both Interphase Stability and Bulk Structural Integrity of Ni-Rich NMC Cathode Materials. ACS Applied Energy Materials, 2020, 3, 3369-3377.	2.5	66
192	A stable nanoporous silicon anode prepared by modified magnesiothermic reactions. Nano Energy, 2016, 20, 68-75.	8.2	65
193	B4C as a stable non-carbon-based oxygen electrode material for lithium-oxygen batteries. Nano Energy, 2017, 33, 195-204.	8.2	65
194	Polymerâ€inâ€â€œQuasiâ€Ionic Liquidâ€•Electrolytes for Highâ€Voltage Lithium Metal Batteries. Advanced Energy Materials, 2019, 9, 1902108.	10.2	65
195	Optimization of fluorinated orthoformate based electrolytes for practical high-voltage lithium metal batteries. Energy Storage Materials, 2021, 34, 76-84.	9.5	65
196	The Effect of Stocking Densities on Reproductive Performance in Laboratory Zebrafish (<i>Danio) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.5	64
197	Controlling Surface Phase Transition and Chemical Reactivity of O3-Layered Metal Oxide Cathodes for High-Performance Na-Ion Batteries. ACS Energy Letters, 2020, 5, 1718-1725.	8.8	64
198	Three-dimensional PtNi hollow nanochains as an enhanced electrocatalyst for the oxygen reduction reaction. Journal of Materials Chemistry A, 2016, 4, 8755-8761.	5.2	63

#	Article	IF	Citations
199	Electrochemically Formed Ultrafine Metal Oxide Nanocatalysts for High-Performance Lithiumâ€“Oxygen Batteries. Nano Letters, 2016, 16, 4932-4939.	4.5	62
200	Very Stable Electron Field Emission from Strontium Titanate Coated Carbon Nanotube Matrices with Low Emission Thresholds. ACS Nano, 2013, 7, 117-125.	7.3	60
201	The Role of Secondary Particle Structures in Surface Phase Transitions of Ni-Rich Cathodes. Chemistry of Materials, 2020, 32, 2884-2892.	3.2	60
202	Excellent Cycling Stability of Sodium Anode Enabled by a Stable Solid Electrolyte Interphase Formed in Etherâ€Based Electrolytes. Advanced Functional Materials, 2020, 30, 2001151.	7.8	60
203	Effect of Chemical Lithium Insertion into Rutile TiO₂ Nanorods. Journal of Physical Chemistry C, 2009, 113, 14567-14574.	1.5	59
204	Direct observation of dual-step twinning nucleation in hexagonal close-packed crystals. Nature Communications, 2020, 11, 2483.	5.8	59
205	Preparation and electrochemical investigation of Li2CoPO4F cathode material for lithium-ion batteries. Journal of Power Sources, 2011, 196, 2241-2245.	4.0	58
206	Rational Design of Electrolytes for Long-Term Cycling of Si Anodes over a Wide Temperature Range. ACS Energy Letters, 2021, 6, 387-394.	8.8	58
207	A Spinel-Integrated P2-Type Layered Composite: High-Rate Cathode for Sodium-Ion Batteries. Journal of the Electrochemical Society, 2016, 163, A584-A591.	1.3	57
208	A high-performance oxygen evolution catalyst in neutral-pH for sunlight-driven CO2 reduction. Nature Communications, 2019, 10, 4081.	5.8	57
209	Infinitesimal sulfur fusion yields quasi-metallic bulk silicon for stable and fast energy storage. Nature Communications, 2019, 10, 2351.	5.8	57
210	High performance Li-ion sulfur batteries enabled by intercalation chemistry. Chemical Communications, 2015, 51, 13454-13457.	2.2	55
211	Unlocking the passivation nature of the cathodeâ€“air interfacial reactions in lithium ion batteries. Nature Communications, 2020, 11, 3204.	5.8	55
212	Alumina-coating of silicon nitride powder. Journal of the European Ceramic Society, 1992, 10, 83-93.	2.8	54
213	Rational Design of Hyperbranched Nanowire Systems for Tunable Superomniphobic Surfaces Enabled by Atomic Layer Deposition. ACS Nano, 2017, 11, 478-489.	7.3	54
214	Electrochemical and interfacial behavior of all solid state batteries using Li10SnP2S12 solid electrolyte. Journal of Power Sources, 2018, 396, 824-830.	4.0	54
215	Current Density Regulated Atomic to Nanoscale Process on Li Deposition and Solid Electrolyte Interphase Revealed by Cryogenic Transmission Electron Microscopy. ACS Nano, 2020, 14, 8766-8775.	7.3	54
216	Electron beam-induced thickening of the protective oxide layer around Fe nanoparticles. Ultramicroscopy, 2007, 108, 43-51.	0.8	53

#	Article	IF	Citations
217	In-Situ TEM visualization of vacancy injection and chemical partition during oxidation of Ni-Cr nanoparticles. Scientific Reports, 2014, 4, 3683.	1.6	53
218	Excess Li-Ion Storage on Reconstructed Surfaces of Nanocrystals To Boost Battery Performance. Nano Letters, 2017, 17, 6018-6026.	4.5	53
219	Facet-Dependent Rock-Salt Reconstruction on the Surface of Layered Oxide Cathodes. Chemistry of Materials, 2018, 30, 692-699.	3.2	53
220	Electrolyte Regulating toward Stabilization of Cobalt-Free Ultrahigh-Nickel Layered Oxide Cathode in Lithium-Ion Batteries. ACS Energy Letters, 2021, 6, 1324-1332.	8.8	53
221	Stabilizing ultrahigh-nickel layered oxide cathodes for high-voltage lithium metal batteries. Materials Today, 2021, 44, 15-24.	8.3	53
222	Electron-Rich Driven Electrochemical Solid-State Amorphization in Liâ€"Si Alloys. Nano Letters, 2013, 13, 4511-4516.	4.5	51
223	Minimized Volume Expansion in Hierarchical Porous Silicon upon Lithiation. ACS Applied Materials & Interfaces, 2019, 11, 13257-13263.	4.0	51
224	Enhanced Intercalation Dynamics and Stability of Engineered Micro/Nanoâ€Structured Electrode Materials: Vanadium Oxide Mesocrystals. Small, 2013, 9, 3880-3886.	5.2	50
225	Locking oxygen in lattice: A quantifiable comparison of gas generation in polycrystalline and single crystal Ni-rich cathodes. Energy Storage Materials, 2022, 47, 195-202.	9.5	50
226	Stacking Faults Assist Lithium-Ion Conduction in a Halide-Based Superionic Conductor. Journal of the American Chemical Society, 2022, 144, 5795-5811.	6.6	50
227	Monodisperse Au₁₁ Clusters Prepared by Soft Landing of Mass Selected Ions. Analytical Chemistry, 2011, 83, 8069-8072.	3.2	49
228	Immobilization of Quantum Dots in the Photo-Cross-Linked Poly(ethylene glycol)-Based Hydrogel. Journal of Physical Chemistry B, 2003, 107, 10464-10469.	1.2	48
229	Competitive Reduction of Pertechnetate (⁹⁹TcO₄^{â^'}) by Dissimilatory Metal Reducing Bacteria and Biogenic Fe(II). Environmental Science & Technology, 2011, 45, 951-957.	4.6	48
230	Defect clustering in GaN irradiated with O⁺ ions. Journal of Materials Research, 2002, 17, 2945-2952.	1.2	46
231	A facile cathode design combining Ni-rich layered oxides with Li-rich layered oxides for lithium-ion batteries. Journal of Power Sources, 2016, 325, 620-629.	4.0	46
232	Lithium-Assisted Self-Assembly of Aluminum Carbide Nanowires and Nanoribbons. Nano Letters, 2002, 2, 105-108.	4.5	45
233	Coreâ^'Shell-Structured Magnetic Ternary Nanocubes. Journal of the American Chemical Society, 2010, 132, 17686-17689.	6.6	45
234	Tuning the Outward to Inward Swelling in Lithiated Silicon Nanotubes via Surface Oxide Coating. Nano Letters, 2016, 16, 5815-5822.	4.5	45

#	Article	IF	Citations
235	First principles prediction of nitrogen-doped carbon nanotubes as a high-performance cathode for Liâ€“S batteries. RSC Advances, 2013, 3, 16775.	1.7	44
236	Formation of Interfacial Layer and Long-Term Cyclability of Liâ€“O₂ Batteries. ACS Applied Materials & Interfaces, 2014, 6, 14141-14151.	4.0	44
237	Atomic-scale combination of germanium-zinc nanofibers for structural and electrochemical evolution. Nature Communications, 2019, 10, 2364.	5.8	44
238	Constructing Robust Electrode/Electrolyte Interphases to Enable Wide Temperature Applications of Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 21496-21505.	4.0	44
239	Reversible Electrochemical Interface of Mg Metal and Conventional Electrolyte Enabled by Intermediate Adsorption. ACS Energy Letters, 2020, 5, 200-206.	8.8	44
240	Mesoscale Origin of the Enhanced Cycling-Stability of the Si-Conductive Polymer Anode for Li-ion Batteries. Scientific Reports, 2014, 4, 3684.	1.6	43
241	In Situ and Ex Situ TEM Study of Lithiation Behaviours of Porous Silicon Nanostructures. Scientific Reports, 2016, 6, 31334.	1.6	43
242	In-situ transmission electron microscopy study of surface oxidation for Niâ€“10Cr and Niâ€“20Cr alloys. Scripta Materialia, 2016, 114, 129-132.	2.6	43
243	Effects of Propylene Carbonate Content in CsPF₆-Containing Electrolytes on the Enhanced Performances of Graphite Electrode for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2016, 8, 5715-5722.	4.0	43
244	Formation of an Anti-Coreâ€“Shell Structure in Layered Oxide Cathodes for Li-Ion Batteries. ACS Energy Letters, 2017, 2, 2598-2606.	8.8	42
245	Stress-Tolerant Nanoporous Germanium Nanofibers for Long Cycle Life Lithium Storage with High Structural Stability. ACS Nano, 2018, 12, 8169-8176.	7.3	42
246	Good Practices for Rechargeable Lithium Metal Batteries. Journal of the Electrochemical Society, 2019, 166, A4141-A4149.	1.3	42
247	The Role of Cesium Cation in Controlling Interphasial Chemistry on Graphite Anode in Propylene Carbonate-Rich Electrolytes. ACS Applied Materials & Interfaces, 2015, 7, 20687-20695.	4.0	41
248	The importance of solid electrolyte interphase formation for long cycle stability full-cell Na-ion batteries. Nano Energy, 2016, 27, 664-672.	8.2	41
249	Investigation of Ionâ€“Solvent Interactions in Nonaqueous Electrolytes Using in Situ Liquid SIMS. Analytical Chemistry, 2018, 90, 3341-3348.	3.2	41
250	Surface Gradient Ti-Doped MnO₂ Nanowires for High-Rate and Long-Life Lithium Battery. ACS Applied Materials & Interfaces, 2018, 10, 44376-44384.	4.0	41
251	All solid thick oxide cathodes based on low temperature sintering for high energy solid batteries. Energy and Environmental Science, 2021, 14, 5044-5056.	15.6	41
252	Assessing Longâ€Term Cycling Stability of Singleâ€Crystal Versus Polycrystalline Nickelâ€Rich NCM in Pouch Cells with 6 mAh cm^{âˆ'2} Electrodes. Small, 2022, 18, e2107357.	5.2	41

#	Article	IF	Citations
253	Observation of materials processes in liquids by electron microscopy. MRS Bulletin, 2015, 40, 46-52.	1.7	40
254	Atomic-Scale Mechanisms of Enhanced Electrochemical Properties of Mo-Doped Co-Free Layered Oxide Cathodes for Lithium-Ion Batteries. ACS Energy Letters, 2019, 4, 2540-2546.	8.8	40
255	Unstable twin in body-centered cubic tungsten nanocrystals. Nature Communications, 2020, 11, 2497.	5.8	40
256	Polymer-ceramic composite electrolytes for all-solid-state lithium batteries: Ionic conductivity and chemical interaction enhanced by oxygen vacancy in ceramic nanofibers. Journal of Power Sources, 2021, 495, 229796.	4.0	40
257	Superionic conduction and interfacial properties of the low temperature phase Li7P2S8Br0.5I0.5. Energy Storage Materials, 2019, 19, 80-87.	9.5	39
258	Synthesis of SiC nanorods from bleached wood pulp. Materials Letters, 2007, 61, 2814-2817.	1.3	38
259	In Situ TEM Observations of Sn-Containing Silicon Nanowires Undergoing Reversible Pore Formation Due to Fast Lithiation/Delithiation Kinetics. Journal of Physical Chemistry C, 2015, 119, 21889-21895.	1.5	38
260	In situ atomic scale visualization of surface kinetics driven dynamics of oxide growth on a Niâ€“Cr surface. Chemical Communications, 2016, 52, 3300-3303.	2.2	38
261	Revealing the Dynamics of Platinum Nanoparticle Catalysts on Carbon in Oxygen and Water Using Environmental TEM. ACS Catalysis, 2017, 7, 7658-7664.	5.5	38
262	Tuning Li-Ion Diffusion in Î±-LiMn_{1â€“<i>x</i>}Fe_{<i>x</i>}PO₄ Nanocrystals by Antisite Defects and Embedded Î²-Phase for Advanced Li-Ion Batteries. Nano Letters, 2017, 17, 4934-4940.	4.5	38
263	Enhanced Cyclability of Lithiumâ€“Oxygen Batteries with Electrodes Protected by Surface Films Induced via In Situ Electrochemical Process. Advanced Energy Materials, 2018, 8, 1702340.	10.2	38
264	Fabrication of silicon nitrideâ€“Silicon oxynitride in-situ composites. Journal of the European Ceramic Society, 1998, 18, 527-533.	2.8	37
265	Stabilization of Metal Nanoparticles in Cubic Mesostructured Silica and Its Application in Regenerable Deep Desulfurization of Warm Syngas. Chemistry of Materials, 2009, 21, 5358-5364.	3.2	37
266	Phosphorus Enrichment as a New Composition in the Solid Electrolyte Interphase of High-Voltage Cathodes and Its Effects on Battery Cycling. Chemistry of Materials, 2015, 27, 7447-7451.	3.2	37
267	Interconnected Vertically Stacked 2D-MoS₂ for Ultrastable Cycling of Rechargeable Li-Ion Battery. ACS Applied Materials & Interfaces, 2019, 11, 20762-20769.	4.0	37
268	Redox Behaviors in a Li-Excess Cation-Disordered Mnâ€“Nbâ€“Oâ€“F Rocksalt Cathode. Chemistry of Materials, 2020, 32, 4490-4498.	3.2	37
269	Dynamic Atom Clusters on AuCu Nanoparticle Surface during CO Oxidation. Journal of the American Chemical Society, 2020, 142, 4022-4027.	6.6	36
270	Mesoscale-architecture-based crack evolution dictating cycling stability of advanced lithium ion batteries. Nano Energy, 2021, 79, 105420.	8.2	36

#	Article	IF	Citations
271	Amine-Wetting-Enabled Dendrite-Free Potassium Metal Anode. ACS Nano, 2022, 16, 7291-7300.	7.3	36
272	Synthesis and Characterization of Stable Ironâ€“Iron Oxide Coreâ€“Shell Nanoclusters for Environmental Applications. Journal of Nanoscience and Nanotechnology, 2006, 6, 568-572.	0.9	35
273	Direct in Situ TEM Observation of Modification of Oxidation by the Injected Vacancies for Niâ€“4Al Alloy Using a Microfabricated Nanopost. ACS Applied Materials & Interfaces, 2015, 7, 17272-17277.	4.0	35
274	Frontiers of solid-state batteries. MRS Bulletin, 2018, 43, 740-745.	1.7	35
275	Enabling Ether-Based Electrolytes for Long Cycle Life of Lithium-Ion Batteries at High Charge Voltage. ACS Applied Materials & Interfaces, 2020, 12, 54893-54903.	4.0	35
276	Evolution of the rate-limiting step: From thin film to thick Ni-rich cathodes. Journal of Power Sources, 2020, 454, 227966.	4.0	35
277	Effect of chloride channel blockers on the cardiac CFTR chloride and L-type calcium currents. Cardiovascular Research, 1996, 32, 391-399.	1.8	34
278	Inâ€...Situâ€Grown ZnCo₂O₄ on Singleâ€Walled Carbon Nanotubes as Air Electrode Materials for Rechargeable Lithiumâ€“Oxygen Batteries. ChemSusChem, 2015, 8, 3697-3703.	3.6	34
279	Direct Mapping of Charge Distribution during Lithiation of Ge Nanowires Using Off-Axis Electron Holography. Nano Letters, 2016, 16, 3748-3753.	4.5	34
280	The mineralogic transformation of ferrihydrite induced by heterogeneous reaction with bioreduced anthraquinone disulfonate (AQDS) and the role of phosphate. Geochimica Et Cosmochimica Acta, 2011, 75, 6330-6349.	1.6	33
281	Anisotropic thermal properties of single-wall-carbon- nanotube-reinforced nanoceramics. Philosophical Magazine Letters, 2004, 84, 419-423.	0.5	32
282	Understanding Practical Catalysts Using a Surface Science Approach:â€‰ The Importance of Strong Interaction between BaO and Al₂O₃ in NO<i>_x</i> Storage Materials. Journal of Physical Chemistry C, 2007, 111, 14942-14944.	1.5	32
283	Crystallographic dependence of photocatalytic activity of WO₃thin films prepared by molecular beam epitaxy. Physical Chemistry Chemical Physics, 2015, 17, 15119-15123.	1.3	32
284	Influence of Dopant Concentration on Creep Properties of Nd₂O₃â€Doped Alumina. Journal of the American Ceramic Society, 2001, 84, 1010-1016.	1.9	31
285	Catalytic templating approaches for three-dimensional hollow carbon/graphene oxide nano-architectures. Nanoscale, 2013, 5, 6291.	2.8	31
286	Revealing salt-expedited reduction mechanism for hollow silicon microsphere formation in bi-functional halide melts. Communications Chemistry, 2018, 1, .	2.0	31
287	The characteristics of interface misfit dislocations for epitaxial Î±-Fe2O3 on Î±-Al2O3(0001). Thin Solid Films, 2002, 414, 31-38.	0.8	30
288	Temperature Dependence of the Oxygen Reduction Mechanism in Nonaqueous Liâ€“O₂ Batteries. ACS Energy Letters, 2017, 2, 2525-2530.	8.8	30

#	Article	IF	Citations
289	Revealing the Reaction Mechanism of Naâ€"O₂ Batteries using Environmental Transmission Electron Microscopy. ACS Energy Letters, 2018, 3, 393-399.	8.8	30
290	In Situ Transmission Electron Microscopy Studies of Electrochemical Reaction Mechanisms in Rechargeable Batteries. Electrochemical Energy Reviews, 2019, 2, 467-491.	13.1	30
291	Microstructure of ZrO2â€"CeO2 hetero-multi-layer films grown on YSZ substrate. Acta Materialia, 2005, 53, 1921-1929.	3.8	29
292	The synthesis of Ag-doped mesoporous TiO2. Microporous and Mesoporous Materials, 2008, 111, 639-642.	2.2	29
293	Strain Accommodation by Facile WO₆ Octahedral Distortion and Tilting during WO₃ Heteroepitaxy on SrTiO₃(001). ACS Applied Materials & Interfaces, 2014, 6, 14253-14258.	4.0	29
294	Competing Pathways for Nucleation of the Double Perovskite Structure in the Epitaxial Synthesis of La₂MnNiO₆. Chemistry of Materials, 2016, 28, 3814-3822.	3.2	29
295	Making ultrafine and highly-dispersive multimetallic nanoparticles in three-dimensional graphene with supercritical fluid as excellent electrocatalyst for oxygen reduction reaction. Journal of Materials Chemistry A, 2016, 4, 18628-18638.	5.2	29
296	Size-Controlled Intercalation-to-Conversion Transition in Lithiation of Transition-Metal Chalcogenidesâ€"NbSe₃. ACS Nano, 2016, 10, 1249-1255.	7.3	29
297	Creation and Ordering of Oxygen Vacancies at WO_{3âˆ'Î´} and Perovskite Interfaces. ACS Applied Materials & Interfaces, 2018, 10, 17480-17486.	4.0	29
298	Physiological indicators of divergent stress responsiveness in male striped bass broodstock. Aquaculture, 2004, 232, 665-678.	1.7	28
299	Synthesis, Characterization, and Optical Properties of Pristine and Doped Yttrium Aluminum Garnet Nanopowders. Journal of the American Ceramic Society, 2005, 88, 284-286.	1.9	28
300	Fluorinationâ€Enhanced Surface Stability of Cationâ€Disordered Rocksalt Cathodes for Liâ€Ion Batteries. Advanced Functional Materials, 2021, 31, 2101888.	7.8	28
301	Optimization of Magnesiumâ€Doped Lithium Metal Anode for High Performance Lithium Metal Batteries through Modeling and Experiment. Angewandte Chemie - International Edition, 2021, 60, 16506-16513.	7.2	28
302	A Polymer-in-Salt Electrolyte with Enhanced Oxidative Stability for Lithium Metal Polymer Batteries. ACS Applied Materials & Interfaces, 2021, 13, 31583-31593.	4.0	28
303	Bifunctional nanoparticles for SERS monitoring and magnetic intervention of assembly and enzyme cutting of DNAs. Journal of Materials Chemistry B, 2013, 1, 4320.	2.9	27
304	Compact Sn/SnO2 microspheres with gradient composition for high volumetric lithium storage. Energy Storage Materials, 2020, 25, 376-381.	9.5	27
305	Atomistic processes of surface-diffusion-induced abnormal softening in nanoscale metallic crystals. Nature Communications, 2021, 12, 5237.	5.8	27
306	Electron Transfer Governed Crystal Transformation of Tungsten Trioxide upon Li Ions Intercalation. ACS Applied Materials & Interfaces, 2016, 8, 24567-24572.	4.0	26

#	Article	IF	Citations
307	Microstructure of liquid phase sintered superplastic silicon carbide ceramics. Journal of Materials Research, 1997, 12, 3266-3270.	1.2	25
308	Synthesis of Organically Templated Nanoporous Tin(II/IV) Phosphate for Radionuclide and Metal Sequestration. Inorganic Chemistry, 2006, 45, 2382-2384.	1.9	25
309	Growth and structure of MBE grown TiO2 anatase films with rutile nano-crystallites. Surface Science, 2007, 601, 1582-1589.	0.8	25
310	Exploring Lithium-Cobalt-Nickel Oxide Spinel Electrodes for â‰¥3.5 V Li-Ion Cells. ACS Applied Materials & Interfaces, 2016, 8, 27720-27729.	4.0	25
311	In Situ Transmission Electron Microsopy of Oxide Shell-Induced Pore Formation in (De)lithiated Silicon Nanowires. ACS Energy Letters, 2018, 3, 2829-2834.	8.8	25
312	Electrolyte-Phobic Surface for the Next-Generation Nanostructured Battery Electrodes. Nano Letters, 2020, 20, 7455-7462.	4.5	25
313	ROS/p38/p53/Puma signaling pathway is involved in emodin-induced apoptosis of human colorectal cancer cells. International Journal of Clinical and Experimental Medicine, 2015, 8, 15413-22.	1.3	25
314	Effect of Nd₂O₃ Doping on the Densification and Abnormal Grain Growth Behavior of Highâ€Purity Alumina. Journal of the American Ceramic Society, 2004, 87, 378-383.	1.9	24
315	Ultralow Contact Resistance at an Epitaxial Metal/Oxide Heterojunction Through Interstitial Site Doping. Advanced Materials, 2013, 25, 4001-4005.	11.1	24
316	Realâ€Time Atomicâ€Scale Visualization of Reversible Copper Surface Activation during the CO Oxidation Reaction. Angewandte Chemie - International Edition, 2020, 59, 2505-2509.	7.2	24
317	Controlling Ion Coordination Structure and Diffusion Kinetics for Optimized Electrode-Electrolyte Interphases and High-Performance Si Anodes. Chemistry of Materials, 2020, 32, 8956-8964.	3.2	24
318	Understanding Reactivities of Ni-Rich Li[Ni_{<i>x</i>}Mn_{<i>y</i>}Co_{1â€“<i>x</i>â€“<i>y</i>}]O₂ Single-Crystal Cathode Materials. ACS Applied Energy Materials, 2020, 3, 12238-12245.	2.5	24
319	Hidden Subsurface Reconstruction and Its Atomic Origins in Layered Oxide Cathodes. Nano Letters, 2020, 20, 2756-2762.	4.5	24
320	Labile Fe(III) supersaturation controls nucleation and properties of product phases from Fe(II)-catalyzed ferrihydrite transformation. Geochimica Et Cosmochimica Acta, 2021, 309, 272-285.	1.6	24
321	Toward the Practical Use of Cobalt-Free Lithium-Ion Batteries by an Advanced Ether-Based Electrolyte. ACS Applied Materials & Interfaces, 2021, 13, 44339-44347.	4.0	24
322	Distortion of the oxygen sublattice in pure cubic-ZrO2. Journal of Materials Research, 2004, 19, 1315-1319.	1.2	23
323	Synthesis and Electrochemical and Structural Investigations of Oxidatively Stable Li₂MoO₃ and <i>x</i>Li₂MoO₃Â·(1 â€“) Tj ETQq1 1 0.784314 rg BT /Overlock 10 Tf	3.2	23
324	Unravelling high-temperature stability of lithium-ion battery with lithium-rich oxide cathode in localized high-concentration electrolyte. Journal of Power Sources Advances, 2020, 5, 100024.	2.6	23

#	Article	IF	Citations
325	Synthesis, Characterization, and Application of Metal Organic Framework Nanostructures. Langmuir, 2010, 26, 18591-18594.	1.6	22
326	Structure of Cr film epitaxially grown on MgO(001). Acta Materialia, 2011, 59, 4274-4282.	3.8	22
327	Highly Dispersed and Active ReO_{<i>x</i>} on Alumina-Modified SBA-15 Silica for 2-Butanol Dehydration. ACS Catalysis, 2012, 2, 1020-1026.	5.5	22
328	New synthesis strategies to improve Co-Free LiNi0.5Mn0.5O2 cathodes: Early transition metal d0 dopants and manganese pyrophosphate coating. Journal of Power Sources, 2020, 479, 228591.	4.0	22
329	Microstructure of the Native Oxide Layer on Ni and Cr-Doped Ni Nanoparticles. Journal of Nanoscience and Nanotechnology, 2011, 11, 8488-8497.	0.9	21
330	Atomistic Conversion Reaction Mechanism of WO₃ in Secondary Ion Batteries of Li, Na, and Ca. Angewandte Chemie, 2016, 128, 6352-6355.	1.6	21
331	Structural Transformations in High-Capacity Li₂Cu_{0.5}Ni_{0.5}O₂ Cathodes. Chemistry of Materials, 2017, 29, 2997-3005.	3.2	21
332	Sulfone-based electrolytes for high energy density lithium-ion batteries. Journal of Power Sources, 2022, 527, 231171.	4.0	21
333	Arylaminobenzoate Block of the Cardiac Cyclic AMP-Dependent Chloride Current. Molecular Pharmacology, 1998, 53, 539-546.	1.0	20
334	Interface Structure of an Epitaxial Cubic Ceria Film on Cubic Zirconia. Journal of the American Ceramic Society, 2003, 86, 363-365.	1.9	20
335	Enhancing the lithiation rate of silicon nanowires by the inclusion of tin. RSC Advances, 2014, 4, 42022-42028.	1.7	20
336	Damage evolution of ion irradiated defected-fluorite La2Zr2O7 epitaxial thin films. Acta Materialia, 2017, 130, 111-120.	3.8	20
337	Deciphering atomistic mechanisms of the gas-solid interfacial reaction during alloy oxidation. Science Advances, 2020, 6, eaay8491.	4.7	20
338	Systematic Evaluation of Carbon Hosts for High-Energy Rechargeable Lithium-Metal Batteries. ACS Energy Letters, 0, , 1550-1559.	8.8	20
339	Electrochemical scissoring of disordered silicon-carbon composites for high-performance lithium storage. Energy Storage Materials, 2021, 36, 139-146.	9.5	20
340	Excited Carrier Dynamics of Î±-Cr2O3/Î±-Fe2O3 Coreâˆ’Shell Nanostructures. Journal of Physical Chemistry B, 2006, 110, 16937-16940.	1.2	19
341	The synthesis of cadmium doped mesoporous TiO2. Inorganic Chemistry Communication, 2007, 10, 639-641.	1.8	19
342	TEM study of fivefold twined gold nanocrystal formation mechanism. Materials Letters, 2014, 116, 299-303.	1.3	19

#	Article	IF	Citations
343	<i>In situ</i> electrochemical scanning/transmission electron microscopy of electrodeâ€“electrolyte interfaces. MRS Bulletin, 2020, 45, 738-745.	1.7	19
344	X-ray Absorption Near-Edge Structure of Grain-Boundary-Segregated Y and Zr in Creep-Resistant Alumina. Journal of the American Ceramic Society, 2002, 85, 2492-2498.	1.9	18
345	Minimizing Polysulfide Shuttle Effect in Lithium-Ion Sulfur Batteries by Anode Surface Passivation. ACS Applied Materials & Interfaces, 2018, 10, 21965-21972.	4.0	18
346	Carbon dioxide-assisted fabrication of highly uniform submicron-sized colloidal carbon spheres via hydrothermal carbonization using soft drink. Colloid and Polymer Science, 2012, 290, 1567-1573.	1.0	17
347	Chemical bonding in amorphous Si-coated carbon nanotubes as anodes for Li ion batteries: a XANES study. RSC Advances, 2014, 4, 20226-20229.	1.7	17
348	A multi-functional interface derived from thiol-modified mesoporous carbon in lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2019, 7, 13372-13381.	5.2	17
349	Stable Solid Electrolyte Interphase Layer Formed by Electrochemical Pretreatment of Gel Polymer Coating on Li Metal Anode for Lithiumâ€“Oxygen Batteries. ACS Energy Letters, 2021, 6, 3321-3331.	8.8	17
350	Dislocation Loops in a-Silicon Nitride. Journal of the American Ceramic Society, 1993, 76, 2136-2138.	1.9	16
351	Vapor-induced solidâ€“liquidâ€“solid process for silicon-based nanowire growth. Journal of Power Sources, 2010, 195, 1691-1697.	4.0	16
352	Synthesis of an excellent electrocatalyst for oxygen reduction reaction with supercritical fluid: Graphene cellular monolith with ultrafine and highly dispersive multimetallic nanoparticles. Journal of Power Sources, 2017, 347, 69-78.	4.0	16
353	Sweeping potential regulated structural and chemical evolution of solid-electrolyte interphase on Cu and Li as revealed by cryo-TEM. Nano Energy, 2020, 76, 105040.	8.2	16
354	Advanced Lowâ€Flammable Electrolytes for Stable Operation of Highâ€Voltage Lithiumâ€Ion Batteries. Angewandte Chemie, 2021, 133, 13109-13116.	1.6	16
355	Atomistic observation on diffusion-mediated friction between single-asperity contacts. Nature Materials, 2022, 21, 173-180.	13.3	16
356	Improving LiNiO₂ cathode performance through particle design and optimization. Journal of Materials Chemistry A, 2022, 10, 12890-12899.	5.2	16
357	Effects of Template and Precursor Chemistry on Structure and Properties of Mesoporous TiO2Thin Films. Langmuir, 2004, 20, 9095-9102.	1.6	15
358	Probing the failure mechanism of nanoscale LiFePO4 for Li-ion batteries. Applied Physics Letters, 2015, 106, 203902.	1.5	15
359	Exceptional Cycling Performance Enabled by Local Structural Rearrangements in Disordered Rocksalt Cathodes. Advanced Energy Materials, 2022, 12, .	10.2	15
360	Proton dynamics in ZnO nanorods quantified by <i>in situ</i> solid-state H1 nuclear magnetic resonance spectroscopy. Applied Physics Letters, 2007, 91, .	1.5	14

#	Article	IF	Citations
361	In situ transmission electron microscopy observations of lithiation of spherical silicon nanopowder produced by induced plasma atomization. Journal of Power Sources, 2015, 279, 522-527.	4.0	14
362	Synthesis and photoexcited charge carrier dynamics of Î²-FeOOH nanorods. Applied Physics Letters, 2007, 90, 103504.	1.5	13
363	Tuning and Quantifying the Dispersibility of Gold Nanocrystals in Liquid and Supercritical Solvents. Journal of Physical Chemistry C, 2008, 112, 13947-13957.	1.5	13
364	The Durability Dependence of Pt/CNT Electrocatalysts on the Nanostructures of Carbon Nanotubes: Hollow- and Bamboo-CNTs. Journal of Nanoscience and Nanotechnology, 2009, 9, 5811-5815.	0.9	13
365	Formation of LiF Surface Layer During Direct Fluorination of High-Capacity Co-Free Disordered Rocksalt Cathodes. ACS Applied Materials & Interfaces, 2021, 13, 38221-38228.	4.0	13
366	Interplay between Cation and Anion Redox in Ni-Based Disordered Rocksalt Cathodes. ACS Nano, 2021, 15, 13360-13369.	7.3	13
367	Synthesis and characterization of phosphate-coated mesoporous titania and Cd-doping of same via ion-exchange. Inorganic Chemistry Communication, 2007, 10, 642-645.	1.8	12
368	Transmission electron microscopy of specimens and processes in liquids. MRS Bulletin, 2016, 41, 791-803.	1.7	12
369	Accessing crystalâ€“crystal interaction forces with oriented nanocrystal atomic force microscopy probes. Nature Protocols, 2018, 13, 2005-2030.	5.5	12
370	Early Failure of Lithiumâ€“Sulfur Batteries at Practical Conditions: Crosstalk between Sulfur Cathode and Lithium Anode. Advanced Science, 2022, 9, e2201640.	5.6	12
371	Temperature-induced phase separation in chromium films. Applied Physics Letters, 2003, 82, 2230-2232.	1.5	11
372	Nitrocellulose templated hierarchical pore structure in mesoporous thin films. Inorganic Chemistry Communication, 2006, 9, 7-9.	1.8	11
373	Controlled deposition of covalently bonded tantalum oxide on carbon supports by solvent evaporation solâ€“gel process. Surface Science, 2009, 603, 2290-2293.	0.8	11
374	Realâ€Time Atomicâ€Scale Visualization of Reversible Copper Surface Activation during the CO Oxidation Reaction. Angewandte Chemie, 2020, 132, 2526-2530.	1.6	11
375	Atomic-Scale Dynamic Interaction of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">H</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub><mml:mi mathvariant="normal">O</mml:mi></mml:mrow></mml:math> Molecules with Cu Surface. Physical Review Letters, 2020, 125, 156101.	2.9	11
376	Fluorinationâ€Enhanced Surface Stability of Disordered Rocksalt Cathodes. Advanced Materials, 2022, 34, e2106256.	11.1	11
377	A novel low-temperature dendritic cyclotrimerization of 2,6-diacetyl pyridine leading to mesoporous carbon containing pyridine rings. Microporous and Mesoporous Materials, 2009, 123, 345-348.	2.2	10
378	Effect of the Ligand Shell Composition on the Dispersibility and Transport of Gold Nanocrystals in Near-Critical Solvents. Langmuir, 2009, 25, 4900-4906.	1.6	10

#	Article	IF	Citations
379	Characterization of electrical properties in axial Si-Ge nanowire heterojunctions using off-axis electron holography and atom-probe tomography. Journal of Applied Physics, 2016, 120, .	1.1	10
380	Radiation Tolerant Interfaces: Influence of Local Stoichiometry at the Misfit Dislocation on Radiation Damage Resistance of Metal/Oxide Interfaces. Advanced Materials Interfaces, 2017, 4, 1700037.	1.9	10
381	Fine Structural Features in Î±-Silicon Nitride Powder Particles and Their Implications. Journal of the American Ceramic Society, 1995, 78, 3393-3396.	1.9	9
382	Templating mesoporous hierarchies in silica thin films using the thermal degradation of cellulose nitrate. Microporous and Mesoporous Materials, 2007, 99, 308-318.	2.2	9
383	Size Dependent Pore Formation in Germanium Nanowires Undergoing Reversible Delithiation Observed by In Situ TEM. Journal of Physical Chemistry C, 2016, 120, 28825-28831.	1.5	9
384	Ultra-Microtome for the Preparation of TEM Specimens from Battery Cathodes. Microscopy and Microanalysis, 2020, 26, 867-877.	0.2	9
385	A Lithium Feedstock Pathway: Coupled Electrochemical Extraction and Direct Battery Materials Manufacturing. ACS Energy Letters, 2022, 7, 2420-2427.	8.8	9
386	Advancements Toward the Greener Processing of Engineered Nanomaterialsâ€"Effect of Core Size on the Dispersibility and Transport of Gold Nanocrystals in Nearâ€Critical Solvents. Small, 2009, 5, 961-969.	5.2	8
387	Defect structure of epitaxial CrxV1â^'x thin films on MgO(001). Thin Solid Films, 2014, 550, 1-9.	0.8	8
388	Morphology-Controlled Discharge Profile and Reversible Cu Extrusion and Dissolution in Biomimetic CuS. ACS Applied Materials & Interfaces, 2018, 10, 41458-41464.	4.0	8
389	Role of Fluorine in Chemomechanics of Cation-Disordered Rocksalt Cathodes. Chemistry of Materials, 2021, 33, 7028-7038.	3.2	8
390	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
391	Nonsacrificial Additive for Tuning the Cathodeâ€"Electrolyte Interphase of Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 4111-4118.	4.0	8
392	Facile Dual-Protection Layer and Advanced Electrolyte Enhancing Performances of Cobalt-free/Nickel-rich Cathodes in Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 17405-17414.	4.0	8
393	Nanotwin assisted reversible formation of low angle grain boundary upon reciprocating shear load. Acta Materialia, 2022, 230, 117850.	3.8	8
394	Atomic Resolution Imaging of Au Nanocluster Dispersed in TiO2, SrTiO3, and MgO. Journal of the American Ceramic Society, 2005, 88, 3184-3191.	1.9	7
395	Morphological Evolution of Ba(NO3)2Supported on Î±-Al2O3(0001):Â An In Situ TEM Study. Journal of Physical Chemistry B, 2006, 110, 11878-11883.	1.2	7
396	Nanostructured materials for rechargeable batteries: synthesis, fundamental understanding and limitations. Current Opinion in Chemical Engineering, 2013, 2, 151-159.	3.8	7

#	Article	IF	Citations
397	Origin, Nature, and the Dynamic Behavior of Nanoscale Vacancy Clusters in Ni-Rich Layered Oxide Cathodes. ACS Applied Materials & Interfaces, 2021, 13, 18849-18855.	4.0	7
398	Structure and radiation damage behavior of epitaxial Cr Mo1â˘ alloy thin films on MgO. Journal of Nuclear Materials, 2013, 437, 55-61.	1.3	6
399	Multimodal and <i>In-Situ</i> Chemical Imaging of Critical Surfaces and Interfaces in Li Batteries. Microscopy Today, 2016, 24, 32-39.	0.2	6
400	Highly Stable Oxygen Electrodes Enabled by Catalyst Redistribution through an In Situ Electrochemical Method. Advanced Energy Materials, 2019, 9, 1803598.	10.2	6
401	Vacancy ordering during selective oxidation of Î²-NiAl. Materialia, 2020, 12, 100783.	1.3	6
402	In-situ TEM observation of shear induced microstructure evolution in Cu-Nb alloy. Scripta Materialia, 2021, 205, 114214.	2.6	6
403	Review of recent progress on in situ TEM shear deformation: a retrospective and perspective view. Journal of Materials Science, 2022, 57, 12177-12201.	1.7	6
404	Fracture toughness and acoustic emission in silicon nitride. Journal of Materials Science Letters, 1987, 6, 1459-1462.	0.5	5
405	Structural nano-defects in Î±-silicon nitride. Journal of the European Ceramic Society, 1996, 16, 679-683.	2.8	5
406	Optimization of Magnesiumâ€Doped Lithium Metal Anode for High Performance Lithium Metal Batteries through Modeling and Experiment. Angewandte Chemie, 2021, 133, 16642-16649.	1.6	5
407	<i>In-situ</i> observation of deformation twin associated sub-grain boundary formation in copper single crystal under bending. Materials Research Letters, 2022, 10, 488-495.	4.1	5
408	Mechanical properties of green compacts with coated powders. Ceramics International, 1996, 22, 113-117.	2.3	4
409	Heteroepitaxial growth and structural analysis of epitaxial Î±â€“Fe2O3(1010) on TiO2(001). Journal of Materials Research, 2005, 20, 1250-1256.	1.2	4
410	Tilted domain growth of metalorganic chemical vapor (MOCVD)-grown ZnO(0001) on Î±-Al₂O₃(0001). Journal of Materials Research, 2008, 23, 13-17.	1.2	4
411	Effect of reductive treatments on Pt behavior and NOx storage in lean NOx trap catalysts. Catalysis Today, 2011, 175, 78-82.	2.2	4
412	Generation and the role of dislocations in single-crystalline phase-change In₂Se₃nanowires under electrical pulses. Nanotechnology, 2016, 27, 335704.	1.3	4
413	Exposure History and its Effect Towards Stabilizing Li Exchange Across Disordered Rock Salt Interfaces. ChemElectroChem, 2021, 8, 3982-3991.	1.7	4
414	Dual Protective Mechanism of AlPO₄ Coating on High-Nickel Cathode Material for High Energy Density and Long Cycle Life Lithium-Ion Batteries. Journal of the Electrochemical Society, 2022, 169, 050523.	1.3	4

#	Article	IF	Citations
415	A New Geometric Method Based on Two-Dimensional Transmission Electron Microscopy for Analysis of Interior versus Exterior Pd Loading on Hollow Carbon Nanofibers. Journal of Physical Chemistry Letters, 2011, 2, 1082-1087.	2.1	3
416	Vacancy clusters in Î±-silicon nitride. Philosophical Magazine Letters, 1995, 72, 111-115.	0.5	2
417	The nature of the defective structure ?-silicon nitride. Journal of Materials Science Letters, 1996, 15, 1805-1807.	0.5	2
418	Origin of dislocation loops in Î±-silicon nitride. Journal of Materials Research, 1996, 11, 1725-1732.	1.2	2
419	Potassium chloride nanowire formation inside a microchannel glass array. Applied Physics Letters, 2005, 86, 263110.	1.5	2
420	Double Epitaxy as a Paradigm for Templated Growth of Highly Ordered Three-Dimensional Mesophase Crystals. ACS Nano, 2016, 10, 8670-8675.	7.3	2
421	Direct Contacting with Liquid Electrolyte Facilitates the Surface Phase Transition in Ni-rich Layered Cathode. Microscopy and Microanalysis, 2020, 26, 3018-3020.	0.2	2
422	Dislocation-Related Plasticity of Ceria-Stabilized Zirconia Polycrystals. Journal of the American Ceramic Society, 1996, 79, 1726-1728.	1.9	1
423	Structural and Chemical Evolution of Li and Mn Rich Layered Oxide Cathode and Correlation with Capacity and Voltage Fading. Microscopy and Microanalysis, 2015, 21, 141-142.	0.2	1
424	Imaging Liquid Processes Using Open Cells in the TEM, SEM, and Beyond. , 0, , 56-77.		1
425	S/TEM Study of Fading Mechanism of Lithium Transition Metal Oxide Cathode for Lithium Ion Battery. Microscopy and Microanalysis, 2017, 23, 2016-2017.	0.2	1
426	Observation of Solid-Liquid Interfacial Reactions Controlled Bulk Phase Transition of Ni-rich Layered Cathode. Microscopy and Microanalysis, 2018, 24, 1522-1523.	0.2	1
427	Precipitation of carbon nanoparticles encapsulating silicon carbide from molten oxide. Journal of Materials Research, 1998, 13, 2039-2041.	1.2	0
428	Interfaces: Ultralow Contact Resistance at an Epitaxial Metal/Oxide Heterojunction Through Interstitial Site Doping (Adv. Mater. 29/2013). Advanced Materials, 2013, 25, 3926-3926.	11.1	0
429	In-Situ S/TEM and In-Situ SIMS Multi-Modality Probing of Chemical and Structural Evolution of Rechargeable Battery. Microscopy and Microanalysis, 2016, 22, 20-21.	0.2	0
430	Multidimensional Analysis of Nanoscale Phase Separation in Complex Materials Systems. Microscopy and Microanalysis, 2016, 22, 282-283.	0.2	0
431	Tuning the Outward to Inward Swelling in Lithiated Silicon Nanotubes via Surface Oxide Coating. Microscopy and Microanalysis, 2017, 23, 2018-2019.	0.2	0
432	Structural Degradations in the Bulk of Cathode Particles for Li-ion Batteries. Microscopy and Microanalysis, 2018, 24, 1504-1505.	0.2	0

#	Article	IF	Citations
433	In-situ S/TEM Probing of the Coupling among Electrochemical, Thermal, and Mechanical Effect in Rechargeable Batteries. Microscopy and Microanalysis, 2019, 25, 2164-2165.	0.2	0
434	Building advanced materials via particle aggregation and molecular self-assembly. Journal of Materials Research, 2019, 34, 2911-2913.	1.2	0
435	In-situ TEM Coupled with AFM Cantilever for Direct Observation of Li Dendrite Nucleation and Growth Under Stress. Microscopy and Microanalysis, 2020, 26, 3038-3039.	0.2	0
436	Hidden Subsurface Reconstruction and Its Atomic Origins in Layered Oxide Cathodes. Microscopy and Microanalysis, 2020, 26, 2542-2544.	0.2	0
437	In-Situ Environmental TEM Study of Solid-Gas Interfacial Process in Energy Materials. Microscopy and Microanalysis, 2021, 27, 1970-1971.	0.2	0
438	In-situ TEM observation of bending induced sub-grain boundary formation in copper single crystal. Microscopy and Microanalysis, 2021, 27, 3414-3415.	0.2	0