Ying Shirley Meng

List of Publications by Citations

256 papers	23,111 citations	80 h-index	147 g-index
284 ext. papers	28,292 ext. citations	14.3 avg, IF	7.37 L-index

#	Paper	IF	Citations
256	Electrodes with high power and high capacity for rechargeable lithium batteries. *Science*, **2006**, 311, 977-80	393	2120
255	Pathways for practical high-energy long-cycling lithium metal batteries. *Nature Energy*, **2019**, 4, 180-186	62.3	1202
254	Layered SnS2-reduced graphene oxide composite--a high-capacity, high-rate, and long-cycle life sodium-ion battery anode material. *Advanced Materials*, **2014**, 26, 3854-9	24	679
253	Identifying surface structural changes in layered Li-excess nickel manganese oxides in high voltage lithium ion batteries: A joint experimental and theoretical study. *Energy and Environmental Science*, **2011**, 4, 2223	35.4	647
252	Lithium Diffusion in Graphitic Carbon. *Journal of Physical Chemistry Letters*, **2010**, 1, 1176-1180	6.4	525
251	Recent progress in cathode materials research for advanced lithium ion batteries. *Materials Science and Engineering Reports*, **2012**, 73, 51-65	30.9	515
250	Quantifying inactive lithium in lithium metal batteries. *Nature*, **2019**, 572, 511-515	50.4	467
249	An advanced cathode for Na-ion batteries with high rate and excellent structural stability. *Physical Chemistry Chemical Physics*, **2013**, 15, 3304-12	3.6	387
248	First principles computational materials design for energy storage materials in lithium ion batteries. *Energy and Environmental Science*, **2009**, 2, 589	35.4	387
247	Gas-solid interfacial modification of oxygen activity in layered oxide cathodes for lithium-ion batteries. *Nature Communications*, **2016**, 7, 12108	17.4	379
246	Localized High-Concentration Sulfone Electrolytes for High-Efficiency Lithium-Metal Batteries. *CheM*, **2018**, 4, 1877-1892	16.2	348
245	Identifying the Critical Role of Li Substitution in P2□Nax[LiyNizMn1−y−z]O2 (0 Chemistry of Materials, **2014**, 26, 1260-1269	9.6	325
244	Narrowing the Gap between Theoretical and Practical Capacities in Li-Ion Layered Oxide Cathode Materials. *Advanced Energy Materials*, **2017**, 7, 1602888	21.8	315
243	Chemical composition mapping with nanometre resolution by soft X-ray microscopy. *Nature Photonics*, **2014**, 8, 765-769	33.9	293
242	Synchrotron X-ray Analytical Techniques for Studying Materials Electrochemistry in Rechargeable Batteries. *Chemical Reviews*, **2017**, 117, 13123-13186	68.1	291
241	A Symmetric RuO2□RuO2 Supercapacitor Operating at 1.6 V by Using a Neutral Aqueous Electrolyte. *Electrochemical and Solid-State Letters*, **2012**, 15, A60		277
240	Exploring Oxygen Activity in the High Energy P2-Type NaNiMnO Cathode Material for Na-Ion Batteries. *Journal of the American Chemical Society*, **2017**, 139, 4835-4845	16.4	275

239	The Effect of Fluoroethylene Carbonate as an Additive on the Solid Electrolyte Interphase on Silicon Lithium-Ion Electrodes. *Chemistry of Materials*, **2015**, 27, 5531-5542	9.6	271
238	Interfaces and Interphases in All-Solid-State Batteries with Inorganic Solid Electrolytes. *Chemical Reviews*, **2020**, 120, 6878-6933	68.1	252
237	Performance and design considerations for lithium excess layered oxide positive electrode materials for lithium ion batteries. *Energy and Environmental Science*, **2016**, 9, 1931-1954	35.4	248
236	Cation Ordering in Layered O3 Li[NixLi1/3-2x/3Mn2/3-x/3]O2 (0□x□1/2) Compounds. *Chemistry of Materials*, **2005**, 17, 2386-2394	9.6	245
235	BATTERIES. Topological defect dynamics in operando battery nanoparticles. *Science*, **2015**, 348, 1344-7	33.3	243
234	New Insights on the Structure of Electrochemically Deposited Lithium Metal and Its Solid Electrolyte Interphases via Cryogenic TEM. *Nano Letters*, **2017**, 17, 7606-7612	11.5	236
233	Reusable oxidation catalysis using metal-monocatecholato species in a robust metal-organic framework. *Journal of the American Chemical Society*, **2014**, 136, 4965-73	16.4	227
232	Correlation Between Oxygen Vacancy, Microstrain, and Cation Distribution in Lithium-Excess Layered Oxides During the First Electrochemical Cycle. *Chemistry of Materials*, **2013**, 25, 1621-1629	9.6	209
231	Key Issues Hindering a Practical Lithium-Metal Anode. *Trends in Chemistry*, **2019**, 1, 152-158	14.8	208
230	In Situ STEM-EELS Observation of Nanoscale Interfacial Phenomena in All-Solid-State Batteries. *Nano Letters*, **2016**, 16, 3760-7	11.5	203
229	First-Principles Investigation of the Li□e□ Phase Diagram and Equilibrium and Nonequilibrium Conversion Reactions of Iron Fluorides with Lithium. *Chemistry of Materials*, **2008**, 20, 5274-5283	9.6	200
228	Bisalt ether electrolytes: a pathway towards lithium metal batteries with Ni-rich cathodes. *Energy and Environmental Science*, **2019**, 12, 780-794	35.4	196
227	Homogenized halides and alkali cation segregation in alloyed organic-inorganic perovskites. *Science* , **2019**, 363, 627-631	33.3	190
226	From nanoscale interface characterization to sustainable energy storage using all-solid-state batteries. *Nature Nanotechnology*, **2020**, 15, 170-180	28.7	187
225	Nucleation of dislocations and their dynamics in layered oxide cathode materials during battery charging. *Nature Energy*, **2018**, 3, 641-647	62.3	187
224	Uncovering the roles of oxygen vacancies in cation migration in lithium excess layered oxides. *Physical Chemistry Chemical Physics*, **2014**, 16, 14665-8	3.6	186
223	A carbonate-free, sulfone-based electrolyte for high-voltage Li-ion batteries. *Materials Today*, **2018**, 21, 341-353	21.8	171
222	Role of 4-tert-Butylpyridine as a Hole Transport Layer Morphological Controller in Perovskite Solar Cells. *Nano Letters*, **2016**, 16, 5594-600	11.5	170

221	Investigating the Energy Storage Mechanism of SnS2-rGO Composite Anode for Advanced Na-Ion Batteries. *Chemistry of Materials*, **2015**, 27, 5633-5640	9.6	167
220	Liquefied gas electrolytes for electrochemical energy storage devices. *Science*, **2017**, 356,	33.3	165
219	Stack Pressure Considerations for Room-Temperature All-Solid-State Lithium Metal Batteries. *Advanced Energy Materials*, **2020**, 10, 1903253	21.8	165
218	All-Printed, Stretchable Zn-Ag2O Rechargeable Battery via Hyperelastic Binder for Self-Powering Wearable Electronics. *Advanced Energy Materials*, **2017**, 7, 1602096	21.8	163
217	Wearable thermoelectrics for personalized thermoregulation. *Science Advances*, **2019**, 5, eaaw0536	14.3	154
216	Self-standing porous LiMn2O4 nanowall arrays as promising cathodes for advanced 3D microbatteries and flexible lithium-ion batteries. *Nano Energy*, **2016**, 22, 475-482	17.1	150
215	Phase Stability of Nickel Hydroxides and Oxyhydroxides. *Journal of the Electrochemical Society*, **2006**, 153, A210	3.9	148
214	Room-Temperature All-solid-state Rechargeable Sodium-ion Batteries with a Cl-doped Na3PS4 Superionic Conductor. *Scientific Reports*, **2016**, 6, 33733	4.9	147
213	Combined economic and technological evaluation of battery energy storage for grid applications. *Nature Energy*, **2019**, 4, 42-50	62.3	138
212	Phase Transitions and High-Voltage Electrochemical Behavior of LiCoO[sub 2] Thin Films Grown by Pulsed Laser Deposition. *Journal of the Electrochemical Society*, **2007**, 154, A337	3.9	137
211	Insights into the Performance Limits of the Li7P3S11 Superionic Conductor: A Combined First-Principles and Experimental Study. *ACS Applied Materials & Interfaces*, **2016**, 8, 7843-53	9.5	130
210	MIL-101(Fe) as a lithium-ion battery electrode material: a relaxation and intercalation mechanism during lithium insertion. *Journal of Materials Chemistry A*, **2015**, 3, 4738-4744	13	130
209	Interface Limited Lithium Transport in Solid-State Batteries. *Journal of Physical Chemistry Letters*, **2014**, 5, 298-303	6.4	129
208	Spectrum-Dependent Spiro-OMeTAD Oxidization Mechanism in Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2015**, 7, 24791-8	9.5	127
207	Ultrathin Al2O3 Coatings for Improved Cycling Performance and Thermal Stability of LiNi0.5Co0.2Mn0.3O2 Cathode Material. *Electrochimica Acta*, **2016**, 203, 154-161	6.7	125
206	Unveiling the Role of tBP-LiTFSI Complexes in Perovskite Solar Cells. *Journal of the American Chemical Society*, **2018**, 140, 16720-16730	16.4	120
205	High-Efficiency Lithium-Metal Anode Enabled by Liquefied Gas Electrolytes. *Joule*, **2019**, 3, 1986-2000	27.8	116
204	Elucidating Reversible Electrochemical Redox of Li6PS5Cl Solid Electrolyte. *ACS Energy Letters*, **2019**, 4, 2418-2427	20.1	113

203	Elucidating the Phase Transformation of Li4Ti5O12 Lithiation at the Nanoscale. *ACS Nano*, **2016**, 10, 4312-21	12.7	112
202	Understanding Na□Ti□O□ as an ultra-low voltage anode material for a Na-ion battery. *Chemical Communications*, **2014**, 50, 12564-7	5.8	111
201	Understanding the Crystal Structure of Layered LiNi[sub 0.5]Mn[sub 0.5]O[sub 2] by Electron Diffraction and Powder Diffraction Simulation. *Electrochemical and Solid-State Letters*, **2004**, 7, A155		111
200	Recent advances in first principles computational research of cathode materials for lithium-ion batteries. *Accounts of Chemical Research*, **2013**, 46, 1171-80	24.3	110
199	Electrochemical Properties of Nonstoichiometric LiNi[sub 0.5]Mn[sub 1.5]O[sub 4□ Thin-Film Electrodes Prepared by Pulsed Laser Deposition. *Journal of the Electrochemical Society*, **2007**, 154, A737	3.9	105
198	Revisiting the origin of cycling enhanced capacity of Fe3O4 based nanostructured electrode for lithium ion batteries. *Nano Energy*, **2017**, 41, 426-433	17.1	100
197	Sodium-Ion Batteries Paving the Way for Grid Energy Storage. *Advanced Energy Materials*, **2020**, 10, 2001274	21.4	99
196	Improvement of the Cathode Electrolyte Interphase on P2-NaNiMnO by Atomic Layer Deposition. *ACS Applied Materials & Interfaces*, **2017**, 9, 26518-26530	9.5	98
195	Structural and electrochemical properties of Gd-doped Li4Ti5O12 as anode material with improved rate capability for lithium-ion batteries. *Journal of Power Sources*, **2015**, 280, 355-362	8.9	98
194	Electrochemical properties of tin oxide anodes for sodium-ion batteries. *Journal of Power Sources*, **2015**, 284, 287-295	8.9	97
193	Durable high-rate capability Na0.44MnO2 cathode material for sodium-ion batteries. *Nano Energy*, **2016**, 27, 602-610	17.1	96
192	Three-dimensional nanoscale characterisation of materials by atom probe tomography. *International Materials Reviews*, **2018**, 63, 68-101	16.1	94
191	Frontiers of in situ electron microscopy. *MRS Bulletin*, **2015**, 40, 12-18	3.2	93
190	A monoclinic polymorph of sodium birnessite for ultrafast and ultrastable sodium ion storage. *Nature Communications*, **2018**, 9, 5100	17.4	93
189	Lithium Lanthanum Titanium Oxides: A Fast Ionic Conductive Coating for Lithium-Ion Battery Cathodes. *Chemistry of Materials*, **2012**, 24, 2744-2751	9.6	90
188	Self-branched □MnO2/□MnO2 heterojunction nanowires with enhanced pseudocapacitance. *Materials Horizons*, **2017**, 4, 415-422	14.4	89
187	Probing the electrode/electrolyte interface in the lithium excess layered oxide Li1.2Ni0.2Mn0.6O2. *Physical Chemistry Chemical Physics*, **2013**, 15, 11128-38	3.6	89
186	Effect of Multiple Cation Electrolyte Mixtures on Rechargeable Zn□MnO2 Alkaline Battery. *Chemistry of Materials*, **2016**, 28, 4536-4545	9.6	88

185	Glassy Li metal anode for high-performance rechargeable Li batteries. *Nature Materials*, **2020**, 19, 1339-1345	27	86
184	Operando Lithium Dynamics in the Li-Rich Layered Oxide Cathode Material via Neutron Diffraction. *Advanced Energy Materials*, **2016**, 6, 1502143	21.8	85
183	Electrochemical and thermal properties of P2-type Na2/3Fe1/3Mn2/3O2 for Na-ion batteries. *Journal of Power Sources*, **2014**, 264, 235-239	8.9	84
182	Effect of Surface Modification on Nano-Structured LiNi(0.5)Mn(1.5)O4 Spinel Materials. *ACS Applied Materials & Interfaces*, **2015**, 7, 16231-9	9.5	83
181	Synthesis-Structure-Property Relations in Layered, Li-excess Oxides Electrode Materials Li[Li[sub 1/3-2x/3]Ni[sub x]Mn[sub 2/3-x/3]]O[sub 2] (x=1/3, 1/4, and 1/5). *Journal of the Electrochemical Society*, **2010**, 157, A1202	3.9	83
180	Understanding and Controlling Anionic Electrochemical Activity in High-Capacity Oxides for Next Generation Li-Ion Batteries. *Chemistry of Materials*, **2017**, 29, 908-915	9.6	81
179	Carbon-free high-loading silicon anodes enabled by sulfide solid electrolytes. *Science*, **2021**, 373, 1494-1499	333	81
178	Pressure effects on sulfide electrolytes for all solid-state batteries. *Journal of Materials Chemistry A* , **2020**, 8, 5049-5055	13	80
177	Dependence on Crystal Size of the Nanoscale Chemical Phase Distribution and Fracture in LixFePO4. *Nano Letters*, **2015**, 15, 4282-8	11.5	80
176	Cryogenic Electron Microscopy for Characterizing and Diagnosing Batteries. *Joule*, **2018**, 2, 2225-2234	27.8	80
175	Direct evidence for high Na+ mobility and high voltage structural processes in P2-Nax[LiyNizMn1-y-z]O2 (x, y, z ≤ 1) cathodes from solid-state NMR and DFT calculations. *Journal of Materials Chemistry A*, **2017**, 5, 4129-4143	13	78
174	Understanding the Role of NH4F and Al2O3 Surface Co-modification on Lithium-Excess Layered Oxide Li1.2Ni0.2Mn0.6O2. *ACS Applied Materials & Interfaces*, **2015**, 7, 19189-200	9.5	78
173	Single particle nanomechanics in operando batteries via lensless strain mapping. *Nano Letters*, **2014** , 14, 5123-7	11.5	78
172	Challenges for and Pathways toward Li-Metal-Based All-Solid-State Batteries. *ACS Energy Letters*,1399-1404	20.1	78
171	Perspective-Fluorinating Interphases. *Journal of the Electrochemical Society*, **2019**, 166, A5184-A5186	3.9	78
170	Divalent-doped Na3Zr2Si2PO12 natrium superionic conductor: Improving the ionic conductivity via simultaneously optimizing the phase and chemistry of the primary and secondary phases. *Journal of Power Sources*, **2017**, 347, 229-237	8.9	77
169	Improved electrochemical performance of tin-sulfide anodes for sodium-ion batteries. *Journal of Materials Chemistry A*, **2015**, 3, 16971-16977	13	76
168	In-situ neutron diffraction study of the xLi2MnO3·(1-x)LiMO2 (x = 0, 0.5; M = Ni, Mn, Co) layered oxide compounds during electrochemical cycling. *Journal of Power Sources*, **2013**, 240, 772-778	8.9	76

167	Local structure adaptability through multi cations for oxygen redox accommodation in Li-Rich layered oxides. *Energy Storage Materials*, **2020**, 24, 384-393	19.4	75
166	Ambient-Pressure Relithiation of Degraded LixNi0.5Co0.2Mn0.3O2 (0 Advanced Energy Materials, **2019**, 9, 1900454	21.8	73
165	TiO2 flakes as anode materials for Li-ion-batteries. *Journal of Power Sources*, **2012**, 207, 166-172	8.9	72
164	RECENT ADVANCES IN SODIUM INTERCALATION POSITIVE ELECTRODE MATERIALS FOR SODIUM ION BATTERIES. *Functional Materials Letters*, **2013**, 06, 1330001	1.2	72
163	Effect of morphology and manganese valence on the voltage fade and capacity retention of Li[Li2/12Ni3/12Mn7/12]O2. *ACS Applied Materials & Interfaces*, **2014**, 6, 18868-77	9.5	71
162	Cryogenic Focused Ion Beam Characterization of Lithium Metal Anodes. *ACS Energy Letters*, **2019**, 4, 489-493	2.8	69
161	Understanding the Electrochemical Mechanisms Induced by Gradient Mg2+ Distribution of Na-Rich Na3+xV2Mgx(PO4)3/C for Sodium Ion Batteries. *Chemistry of Materials*, **2018**, 30, 2498-2505	9.6	68
160	Liquefied gas electrolytes for wide-temperature lithium metal batteries. *Energy and Environmental Science*, **2020**, 13, 2209-2219	35.4	63
159	A review on mechanistic understanding of MnO2 in aqueous electrolyte for electrical energy storage systems. *International Materials Reviews*, **2020**, 65, 356-387	16.1	63
158	New Insights into the Interphase between the Na Metal Anode and Sulfide Solid-State Electrolytes: A Joint Experimental and Computational Study. *ACS Applied Materials & Interfaces*, **2018**, 10, 10076-10086	9.5	62
157	Efficient Direct Recycling of Lithium-Ion Battery Cathodes by Targeted Healing. *Joule*, **2020**, 4, 2609-2626	37.8	62
156	Probing the Mechanism of Sodium Ion Insertion into Copper Antimony Cu2Sb Anodes. *Journal of Physical Chemistry C*, **2014**, 118, 7856-7864	3.8	61
155	Advanced analytical electron microscopy for lithium-ion batteries. *NPG Asia Materials*, **2015**, 7, e193-e193	10.3	60
154	Identifying the Distribution of Al3+ in LiNi0.8Co0.15Al0.05O2. *Chemistry of Materials*, **2016**, 28, 8170-8180	9.6	60
153	Role of Polyacrylic Acid (PAA) Binder on the Solid Electrolyte Interphase in Silicon Anodes. *Chemistry of Materials*, **2019**, 31, 2535-2544	9.6	59
152	Exploiting Mechanistic Solvation Kinetics for Dual-Graphite Batteries with High Power Output at Extremely Low Temperature. *Angewandte Chemie - International Edition*, **2019**, 58, 18892-18897	16.4	59
151	Revealing Nanoscale Solid-Solid Interfacial Phenomena for Long-Life and High-Energy All-Solid-State Batteries. *ACS Applied Materials & Interfaces*, **2019**, 11, 43138-43145	9.5	57
150	Nonequilibrium structural dynamics of nanoparticles in LiNi(1/2)Mn(3/2)O4 cathode under operando conditions. *Nano Letters*, **2014**, 14, 5295-300	11.5	56

149	Unveiling the Stable Nature of the Solid Electrolyte Interphase between Lithium Metal and LiPON via Cryogenic Electron Microscopy. *Joule*, **2020**, 4, 2484-2500	27.8	56
148	In situ X-ray diffraction study of the lithium excess layered oxide compound Li[Li0.2Ni0.2Mn0.6]O2 during electrochemical cycling. *Solid State Ionics*, **2012**, 207, 44-49	3.3	55
147	Urea-based hydrothermal synthesis of LiNi0.5Co0.2Mn0.3O2 cathode material for Li-ion battery. *Journal of Power Sources*, **2018**, 394, 114-121	8.9	55
146	Effects of laser energy and wavelength on the analysis of LiFePO using laser assisted atom probe tomography. *Ultramicroscopy*, **2015**, 148, 57-66	3.1	51
145	Nanoconfined Iron Oxychloride Material as a High-Performance Cathode for Rechargeable Chloride Ion Batteries. *ACS Energy Letters*, **2017**, 2, 2341-2348	20.1	51
144	Moving beyond 99.9% Coulombic efficiency for lithium anodes in liquid electrolytes. *Nature Energy*, **2021**, 6, 951-960	62.3	51
143	High rate delithiation behaviour of LiFePO4 studied by quick X-ray absorption spectroscopy. *Chemical Communications*, **2012**, 48, 11537-9	5.8	50
142	Electrochemical performance and interfacial investigation on Si composite anode for lithium ion batteries in full cell. *Journal of Power Sources*, **2017**, 359, 173-181	8.9	49
141	Role of Crystal Symmetry in the Reversibility of Stacking-Sequence Changes in Layered Intercalation Electrodes. *Nano Letters*, **2017**, 17, 7789-7795	11.5	48
140	Effects of cathode electrolyte interfacial (CEI) layer on long term cycling of all-solid-state thin-film batteries. *Journal of Power Sources*, **2016**, 324, 342-348	8.9	48
139	Enhancing the electrochemical performance of Li-rich layered oxide Li1.13Ni0.3Mn0.57O2 via WO3 doping and accompanying spontaneous surface phase formation. *Journal of Power Sources*, **2018**, 375, 21-28	8.9	47
138	Role of LiCoO2 Surface Terminations in Oxygen Reduction and Evolution Kinetics. *Journal of Physical Chemistry Letters*, **2015**, 6, 1357-62	6.4	46
137	Intercalation and Conversion Reactions of Nanosized MnO2 Cathode in the Secondary Zn/MnO2 Alkaline Battery. *Journal of Physical Chemistry C*, **2018**, 122, 11177-11185	3.8	44
136	Achieving high efficiency and cyclability in inexpensive soluble lead flow batteries. *Energy and Environmental Science*, **2013**, 6, 1573	35.4	44
135	Pressure-tailored lithium deposition and dissolution in lithium metal batteries. *Nature Energy*, **2021**, 6, 987-994	62.3	44
134	Direct Visualization of the Solid Electrolyte Interphase and Its Effects on Silicon Electrochemical Performance. *Advanced Materials Interfaces*, **2016**, 3, 1600438	4.6	43
133	Enabling Thin and Flexible Solid-State Composite Electrolytes by the Scalable Solution Process. *ACS Applied Energy Materials*, **2019**, 2, 6542-6550	6.1	42
132	Identifying the chemical and structural irreversibility in LiNi0.8Co0.15Al0.05O2 a model compound for classical layered intercalation. *Journal of Materials Chemistry A*, **2018**, 6, 4189-4198	13	41

131	Ab initio study of sodium ordering in Na0.75CoO2 and its relation to Co3+Co4+ charge ordering. *Physical Review B*, **2005**, 72,	3.3	41
130	Conversion mechanism of nickel fluoride and NiO-doped nickel fluoride in Li ion batteries. *Electrochimica Acta*, **2012**, 59, 213-221	6.7	40
129	Porous manganese oxide generated from lithiation/delithiation with improved electrochemical oxidation for supercapacitors. *Journal of Materials Chemistry*, **2011**, 21, 15521		40
128	Nanosheet-assembled hierarchical Li4Ti5O12 microspheres for high-volumetric-density and high-rate Li-ion battery anode. *Energy Storage Materials*, **2019**, 21, 361-371	19.4	39
127	Engineering three-dimensionally electrodeposited Si-on-Ni inverse opal structure for high volumetric capacity Li-ion microbattery anode. *ACS Applied Materials & Interfaces*, **2014**, 6, 9842-9	9.5	37
126	Nonequilibrium Pathways during Electrochemical Phase Transformations in Single Crystals Revealed by Dynamic Chemical Imaging at Nanoscale Resolution. *Advanced Energy Materials*, **2015**, 5, 1402040	21.8	37
125	Nanoscale strain mapping in battery nanostructures. *Applied Physics Letters*, **2014**, 104, 073108	3.4	37
124	Synthesis of LiNixFe1PO4 solid solution as cathode materials for lithium ion batteries. *Electrochimica Acta*, **2013**, 108, 827-832	6.7	36
123	A review on the stability and surface modification of layered transition-metal oxide cathodes. *Materials Today*, **2021**, 46, 155-182	21.8	35
122	In situ strain evolution during a disconnection event in a battery nanoparticle. *Physical Chemistry Chemical Physics*, **2015**, 17, 10551-5	3.6	34
121	Structure and Solution Dynamics of Lithium Methyl Carbonate as a Protective Layer For Lithium Metal. *ACS Applied Energy Materials*, **2018**, 1, 1864-1869	6.1	34
120	In situ TEM observation of the electrochemical lithiation of N-doped anatase TiO2 nanotubes as anodes for lithium-ion batteries. *Journal of Materials Chemistry A*, **2017**, 5, 20651-20657	13	34
119	Reciprocal Salt Flux Growth of LiFePO4 Single Crystals with Controlled Defect Concentrations. *Chemistry of Materials*, **2013**, 25, 4574-4584	9.6	34
118	Synthesis and electrochemical properties of layered LiNi2/3Sb1/3O2. *Journal of Power Sources*, **2007**, 173, 550-555	8.9	34
117	Revisiting the conversion reaction voltage and the reversibility of the CuF2 electrode in Li-ion batteries. *Nano Research*, **2017**, 10, 4232-4244	10	33
116	Exploring Li substituted O3-structured layered oxides NaLixNi1/3Mn1/3+xCo1/3O2 (x = 0.07, 0.13, and 0.2) as promising cathode materials for rechargeable Na batteries. *Electrochemistry Communications*, **2015**, 60, 13-16	5.1	33
115	Electrodeposited three-dimensional Ni-Si nanocable arrays as high performance anodes for lithium ion batteries. *Nanoscale*, **2013**, 5, 10376-83	7.7	33
114	High Performance Printed AgO-Zn Rechargeable Battery for Flexible Electronics. *Joule*, **2021**, 5, 228-248	27.8	33

113	Sensitivity and Limitations of Structures from X-ray and Neutron-Based Diffraction Analyses of Transition Metal Oxide Lithium-Battery Electrodes. *Journal of the Electrochemical Society*, **2017**, 164, A1802-A1811	3.9	32
112	Enhancing the Ion Transport in LiMnNiO by Altering the Particle Wulff Shape via Anisotropic Surface Segregation. *ACS Applied Materials & Interfaces*, **2017**, 9, 36745-36754	9.5	32
111	Single-step synthesis of highly conductive Na3PS4 solid electrolyte for sodium all solid-state batteries. *Journal of Power Sources*, **2019**, 435, 126623	8.9	32
110	Deposition of ZnO on bismuth species towards a rechargeable Zn-based aqueous battery. *Physical Chemistry Chemical Physics*, **2016**, 18, 26376-26382	3.6	32
109	KN95 and N95 Respirators Retain Filtration Efficiency despite a Loss of Dipole Charge during Decontamination. *ACS Applied Materials & Interfaces*, **2020**, 12, 54473-54480	9.5	31
108	A stable cathode-solid electrolyte composite for high-voltage, long-cycle-life solid-state sodium-ion batteries. *Nature Communications*, **2021**, 12, 1256	17.4	31
107	Experimental and Computational Evaluation of a Sodium-Rich Anti-Perovskite for Solid State Electrolytes. *Journal of the Electrochemical Society*, **2016**, 163, A2165-A2171	3.9	29
106	Distinction between Intrinsic and X-ray-Induced Oxidized Oxygen States in Li-Rich 3d Layered Oxides and LiAlO2. *Journal of Physical Chemistry C*, **2019**, 123, 13201-13207	3.8	28
105	High pressure driven structural and electrochemical modifications in layered lithium transition metal intercalation oxides. *Energy and Environmental Science*, **2012**, 5, 6214	35.4	28
104	Enabling high areal capacity for Co-free high voltage spinel materials in next-generation Li-ion batteries. *Journal of Power Sources*, **2020**, 473, 228579	8.9	28
103	Cluster expansion and optimization of thermal conductivity in SiGe nanowires. *Physical Review B*, **2010**, 81,	3.3	27
102	Intrinsic Surface Stability in LiMn2□NixO4□(x = 0.45, 0.5) High Voltage Spinel Materials for Lithium Ion Batteries. *Electrochemical and Solid-State Letters*, **2012**, 15, A72		27
101	Electrochemical Properties of Nanostructured Al[sub 1□]Cu[sub x] Alloys as Anode Materials for Rechargeable Lithium-Ion Batteries. *Journal of the Electrochemical Society*, **2008**, 155, A615	3.9	26
100	Thermodynamics of Antisite Defects in Layered NMC Cathodes: Systematic Insights from High-Precision Powder Diffraction Analyses. *Chemistry of Materials*, **2020**, 32, 1002-1010	9.6	26
99	In situ formed polymer gel electrolytes for lithium batteries with inherent thermal shutdown safety features. *Journal of Materials Chemistry A*, **2019**, 7, 16984-16991	13	25
98	How Bulk Sensitive is Hard X-ray Photoelectron Spectroscopy: Accounting for the Cathode-Electrolyte Interface when Addressing Oxygen Redox. *Journal of Physical Chemistry Letters*, **2020**, 11, 2106-2112	6.4	25
97	Self-Assembled Framework Formed During Lithiation of SnS Nanoplates Revealed by in Situ Electron Microscopy. *Accounts of Chemical Research*, **2017**, 50, 1513-1520	24.3	25
96	Internal-short-mitigating current collector for lithium-ion battery. *Journal of Power Sources*, **2017**, 349, 84-93	8.9	24

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