Yet-Ming Chiang

List of Publications by Citations

178 papers	19,888 citations	71 h-index	140 g-index
199 ext. papers	22,361 ext. citations	11.4 avg, IF	7.06 L-index

#	Paper	IF	Citations
178	Electronically conductive phospho-olivines as lithium storage electrodes. *Nature Materials*, **2002**, 1, 123-8	27	2424
177	Virus-enabled synthesis and assembly of nanowires for lithium ion battery electrodes. *Science*, **2006**, 312, 885-8	33.3	1654
176	The synergetic effect of lithium polysulfide and lithium nitrate to prevent lithium dendrite growth. *Nature Communications*, **2015**, 6, 7436	17.4	1034
175	Net-zero emissions energy systems. *Science*, **2018**, 360,	33.3	606
174	Mechanism of Lithium Metal Penetration through Inorganic Solid Electrolytes. *Advanced Energy Materials*, **2017**, 7, 1701003	21.8	520
173	Peptides with selective affinity for carbon nanotubes. *Nature Materials*, **2003**, 2, 196-200	27	472
172	Mechanism and Kinetics of Li2S Precipitation in Lithium-Sulfur Batteries. *Advanced Materials*, **2015**, 27, 5203-9	24	455
171	Review—Practical Challenges Hindering the Development of Solid State Li Ion Batteries. *Journal of the Electrochemical Society*, **2017**, 164, A1731-A1744	3.9	408
170	Semi-Solid Lithium Rechargeable Flow Battery. *Advanced Energy Materials*, **2011**, 1, 511-516	21.8	394
169	Electrochemically-driven solid-state amorphization in lithium-silicon alloys and implications for lithium storage. *Acta Materialia*, **2003**, 51, 1103-1113	8.4	389
168	Size-Dependent Lithium Miscibility Gap in Nanoscale Li[sub 1−x]FePO[sub 4]. *Electrochemical and Solid-State Letters*, **2007**, 10, A134		383
167	Towards High Power High Energy Aqueous Sodium-Ion Batteries: The NaTi2(PO4)3/Na0.44MnO2 System. *Advanced Energy Materials*, **2013**, 3, 290-294	21.8	367
166	Lead-free high-strain single-crystal piezoelectrics in the alkaline–bismuth–titanate perovskite family. *Applied Physics Letters*, **1998**, 73, 3683-3685	3.4	349
165	Materials science. Building a better battery. *Science*, **2010**, 330, 1485-6	33.3	334
164	Solute Segregation and Grain-Boundary Impedance in High-Purity Stabilized Zirconia. *Journal of the American Ceramic Society*, **1996**, 79, 1169-1180	3.8	328
163	Long range interactions in nanoscale science. *Reviews of Modern Physics*, **2010**, 82, 1887-1944	40.5	304
162	Grain-Boundary Chemistry of Barium Titanate and Strontium Titanate: I, High-Temperature Equilibrium Space Charge. *Journal of the American Ceramic Society*, **1990**, 73, 3278-3285	3.8	280

161	Electrochemical Shock of Intercalation Electrodes: A Fracture Mechanics Analysis. *Journal of the Electrochemical Society*, **2010**, 157, A1052	3.9	243
160	Microstructural Modeling and Design of Rechargeable Lithium-Ion Batteries. *Journal of the Electrochemical Society*, **2005**, 152, A255	3.9	234
159	Comparisons of Hamaker Constants for Ceramic Systems with Intervening Vacuum or Water: From Force Laws and Physical Properties. *Journal of Colloid and Interface Science*, **1996**, 179, 460-469	9.3	232
158	Aliovalent Substitutions in Olivine Lithium Iron Phosphate and Impact on Structure and Properties. *Advanced Functional Materials*, **2009**, 19, 1060-1070	15.6	228
157	Design of battery electrodes with dual-scale porosity to minimize tortuosity and maximize performance. *Advanced Materials*, **2013**, 25, 1254-8	24	184
156	Microscale Measurements of the Electrical Conductivity of Doped LiFePO[sub 4]. *Electrochemical and Solid-State Letters*, **2003**, 6, A278		183
155	Polysulfide flow batteries enabled by percolating nanoscale conductor networks. *Nano Letters*, **2014**, 14, 2210-8	11.5	178
154	Electrochemically-driven solid-state amorphization in lithium metal anodes. *Journal of Power Sources*, **2003**, 119-121, 604-609	8.9	161
153	Three-Dimensional Growth of Li2S in Lithium-Sulfur Batteries Promoted by a Redox Mediator. *Nano Letters*, **2016**, 16, 549-54	11.5	152
152	Compliant Yet Brittle Mechanical Behavior of Li2S P2S5 Lithium-Ion-Conducting Solid Electrolyte. *Advanced Energy Materials*, **2017**, 7, 1602011	21.8	144
151	Introduction and Overview: Physical Properties of Nanostructured Materials **1997**, 1, 205-209		143
150	Single-particle measurements of electrochemical kinetics in NMC and NCA cathodes for Li-ion batteries. *Energy and Environmental Science*, **2018**, 11, 860-871	35.4	139
149	Characterization of Electronic and Ionic Transport in Li1-xNi0.33Mn0.33Co0.33O2(NMC333) and Li1-xNi0.50Mn0.20Co0.30O2(NMC523) as a Function of Li Content. *Journal of the Electrochemical Society*, **2016**, 163, A1512-A1517	3.9	136
148	Modeling of internal mechanical failure of all-solid-state batteries during electrochemical cycling, and implications for battery design. *Journal of Materials Chemistry A*, **2017**, 5, 19422-19430	13	136
147	Electrochemically Driven Phase Transitions in Insertion Electrodes for Lithium-Ion Batteries: Examples in Lithium Metal Phosphate Olivines. *Annual Review of Materials Research*, **2010**, 40, 501-529	12.8	136
146	Ultrahigh-energy-density microbatteries enabled by new electrode architecture and micropackaging design. *Advanced Materials*, **2010**, 22, E139-44	24	135
145	Stamped microbattery electrodes based on self-assembled M13 viruses. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 17227-31	11.5	127
144	Design criteria for electrochemical shock resistant battery electrodes. *Energy and Environmental Science*, **2012**, 5, 8014	35.4	126

143	Origin of Solid-State Activated Sintering in Bi2O3-Doped ZnO. *Journal of the American Ceramic Society*, **1999**, 82, 916-920	3.8	123
142	Electrodeposition Kinetics in Li-S Batteries: Effects of Low Electrolyte/Sulfur Ratios and Deposition Surface Composition. *Journal of the Electrochemical Society*, **2017**, 164, A917-A922	3.9	122
141	Electronic Structure and Electrical Conductivity of Undoped LiFePO[sub 4]. *Electrochemical and Solid-State Letters*, **2004**, 7, A131		120
140	Thin Glass Film between Ultrafine Conductor Particles in Thick-Film Resistors. *Journal of the American Ceramic Society*, **1994**, 77, 1143-1152	3.8	120
139	Space Charge Segregation at Grain Boundaries in Titanium Dioxide: II, Model Experiments. *Journal of the American Ceramic Society*, **1993**, 76, 2447-2459	3.8	119
138	Lithium Metal Penetration Induced by Electrodeposition through Solid Electrolytes: Example in Single-Crystal Li6La3ZrTaO12Garnet. *Journal of the Electrochemical Society*, **2018**, 165, A3648-A3655	3.9	117
137	Storage Requirements and Costs of Shaping Renewable Energy Toward Grid Decarbonization. *Joule* , **2019**, 3, 2134-2153	27.8	116
136	Reversible Aluminum-Ion Intercalation in Prussian Blue Analogs and Demonstration of a High-Power Aluminum-Ion Asymmetric Capacitor. *Advanced Energy Materials*, **2015**, 5, 1401410	21.8	115
135	Space Charge Segregation at Grain Boundaries in Titanium Dioxide: I, Relationship between Lattice Defect Chemistry and Space Charge Potential. *Journal of the American Ceramic Society*, **1993**, 76, 2437-2446	3.8	115
134	Liquid-Phase Reaction-Bonding of Silicon Carbide Using Alloyed Silicon-Molybdenum Melts. *Journal of the American Ceramic Society*, **1990**, 73, 1193-1200	3.8	114
133	Wetting and Prewetting on Ceramic Surfaces. *Annual Review of Materials Research*, **2008**, 38, 227-249	12.8	113
132	Reaction-formed silicon carbide. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1991**, 144, 63-74	5.3	113
131	Electrochemically Induced Phase Transformation in Nanoscale Olivines Li1−xMPO4 (M = Fe, Mn). *Chemistry of Materials*, **2008**, 20, 6189-6198	9.6	109
130	Assembly of metal nanoparticles into nanogaps. *Small*, **2007**, 3, 488-99	11	106
129	Thermodynamic Stability of Intergranular Amorphous Films in Bismuth-Doped Zinc Oxide. *Journal of the American Ceramic Society*, **2005**, 81, 89-96	3.8	105
128	Energy storage emerging: A perspective from the Joint Center for Energy Storage Research. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 12550-12557	11.5	103
127	Air-Breathing Aqueous Sulfur Flow Battery for Ultralow-Cost Long-Duration Electrical Storage. *Joule*, **2017**, 1, 306-327	27.8	101
126	Molecular understanding of polyelectrolyte binders that actively regulate ion transport in sulfur cathodes. *Nature Communications*, **2017**, 8, 2277	17.4	100

125	Grain-Boundary Chemistry of Barium Titanate and Strontium Titanate: II, Origin of Electrical Barriers in Positive-Temperature-Coefficient Thermistors. *Journal of the American Ceramic Society*, **1990**, 73, 3286-3291	3.8	99
124	Overpotential-Dependent Phase Transformation Pathways in Lithium Iron Phosphate Battery Electrodes. *Chemistry of Materials*, **2010**, 22, 5845-5855	9.6	96
123	In situ observation of random solid solution zone in LiFePO electrode. *Nano Letters*, **2014**, 14, 4005-10	11.5	93
122	Fabrication of functionally graded reaction infiltrated SiC Si composite by three-dimensional printing (3DP process. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2001**, 298, 110-119	5.3	93
121	An Analytical Method to Determine Tortuosity in Rechargeable Battery Electrodes. *Journal of the Electrochemical Society*, **2012**, 159, A548-A552	3.9	91
120	Aqueous semi-solid flow cell: demonstration and analysis. *Physical Chemistry Chemical Physics*, **2013** , 15, 15833-9	3.6	85
119	Grain-Boundary Migration in Nonstoichiometric Solid Solutions of Magnesium Aluminate Spinel: I, Grain Growth Studies. *Journal of the American Ceramic Society*, **1989**, 72, 271-277	3.8	83
118	Size-dependent solute segregation and total solubility in ultrafine polycrystals: Ca in TiO2. *Acta Metallurgica Et Materialia*, **1995**, 43, 319-328		81
117	Structure, Chemistry, and Charge Transfer Resistance of the Interface between Li7La3Zr2O12 Electrolyte and LiCoO2 Cathode. *Chemistry of Materials*, **2018**, 30, 6259-6276	9.6	79
116	Spatially Resolved Modeling of Microstructurally Complex Battery Architectures. *Journal of the Electrochemical Society*, **2007**, 154, A856	3.9	79
115	Reaction-infiltrated, net-shape SiC composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1995**, 195, 131-143	5.3	79
114	The Effect of Stress on Battery-Electrode Capacity. *Journal of the Electrochemical Society*, **2017**, 164, A645-A654	3.9	76
113	Comparative Study of Lithium Transport Kinetics in Olivine Cathodes for Li-ion Batteries *Chemistry of Materials*, **2010**, 22, 1088-1097	9.6	75
112	Grain-Boundary Migration in Nonstoichiometric Solid Solutions of Magnesium Aluminate Spinel: II, Effects of Grain-Boundary Nonstoichiometry. *Journal of the American Ceramic Society*, **1990**, 73, 1153-1158	3.8	75
111	Impact of Pore Tortuosity on Electrode Kinetics in Lithium Battery Electrodes: Study in Directionally Freeze-Cast LiNi0.8Co0.15Al0.05O2(NCA). *Journal of the Electrochemical Society*, **2018**, 165, A388-A395	3.9	73
110	3D printing metals like thermoplastics: Fused filament fabrication of metallic glasses. *Materials Today*, **2018**, 21, 697-702	21.8	73
109	Electronic Conductivity in the Li4/3Ti5/3O4 i7/3Ti5/3O4 System and Variation with State-of-Charge as a Li Battery Anode. *Advanced Energy Materials*, **2013**, 3, 1125-1129	21.8	73
108	Characterization of Electronic and Ionic Transport in Li1-xNi0.8Co0.15Al0.05O2(NCA). *Journal of the Electrochemical Society*, **2015**, 162, A1163-A1169	3.9	72

107	Electrochemically Induced Cation Disorder and Phase Transformations in Lithium Intercalation Oxides. *Chemistry of Materials*, **2001**, 13, 53-63	9.6	67
106	Relaxor single crystals in the (Bi1/2Na1/2)1−xBaxZryTi1−yO3 system exhibiting high electrostrictive strain. *Journal of Applied Physics*, **2001**, 90, 5287-5295	2.5	66
105	Maximizing Energetic Efficiency in Flow Batteries Utilizing Non-Newtonian Fluids. *Journal of the Electrochemical Society*, **2014**, 161, A486-A496	3.9	65
104	Two-dimensional lithium diffusion behavior and probable hybrid phase transformation kinetics in olivine lithium iron phosphate. *Nature Communications*, **2017**, 8, 1194	17.4	64
103	Fabrication of Low-Tortuosity Ultrahigh-Area-Capacity Battery Electrodes through Magnetic Alignment of Emulsion-Based Slurries. *Advanced Energy Materials*, **2019**, 9, 1802472	21.8	64
102	Improving the capacity of sodium ion battery using a virus-templated nanostructured composite cathode. *Nano Letters*, **2015**, 15, 2917-21	11.5	63
101	Supramolecular Perylene Bisimide-Polysulfide Gel Networks as Nanostructured Redox Mediators in Dissolved Polysulfide Lithium−Sulfur Batteries. *Chemistry of Materials*, **2015**, 27, 6765-6770	9.6	63
100	Electron microscopic characterization of electrochemically cycled LiCoO2 and Li(Al,Co)O2 battery cathodes. *Journal of Power Sources*, **1999**, 81-82, 594-598	8.9	62
99	Nanometer-thick surficial films in oxides as a case of prewetting. *Langmuir*, **2005**, 21, 7358-65	4	60
98	Nanomechanical Quantification of Elastic, Plastic, and Fracture Properties of LiCoO2. *Advanced Energy Materials*, **2012**, 2, 940-944	21.8	58
97	Electrochemical Redox Behavior of Li Ion Conducting Sulfide Solid Electrolytes. *Chemistry of Materials*, **2019**, 31, 707-713	9.6	57
96	Solvent Effects on Polysulfide Redox Kinetics and Ionic Conductivity in Lithium-Sulfur Batteries. *Journal of the Electrochemical Society*, **2016**, 163, A3111-A3116	3.9	57
95	Modeling the hydrodynamic and electrochemical efficiency of semi-solid flow batteries. *Electrochimica Acta*, **2012**, 69, 301-307	6.7	56
94	Na3Ti2(PO4)3 as a sodium-bearing anode for rechargeable aqueous sodium-ion batteries. *Electrochemistry Communications*, **2014**, 44, 12-15	5.1	55
93	Learning only buys you so much: Practical limits on battery price reduction. *Applied Energy*, **2019**, 239, 218-224	10.7	54
92	Effect of Electrochemical Charging on Elastoplastic Properties and Fracture Toughness of LiXCoO2. *Journal of the Electrochemical Society*, **2014**, 161, F3084-F3090	3.9	53
91	Biphasic Electrode Suspensions for Li-Ion Semi-solid Flow Cells with High Energy Density, Fast Charge Transport, and Low-Dissipation Flow. *Advanced Energy Materials*, **2015**, 5, 1500535	21.8	51
90	Electrochemical Shock in Ion-Intercalation Materials with Limited Solid-Solubility. *Journal of the Electrochemical Society*, **2013**, 160, A1286-A1292	3.9	50

89	Spin-glass behavior in LiMn2O4 spinel. *Applied Physics Letters*, **1999**, 74, 2504-2506	3.4	48
88	Mechanical instability of electrode-electrolyte interfaces in solid-state batteries. *Physical Review Materials*, **2018**, 2,	3.2	48
87	Measurements of Excess Enthalpy in Ultrafine-Grained Titanium Dioxide. *Journal of the American Ceramic Society*, **1995**, 78, 2045-2055	3.8	47
86	Comparative studies of the electronic structure of LiFePO4, FePO4, Li3PO4, LiMnPO4, LiCoPO4, and LiNiPO4. *Journal of Applied Physics*, **2004**, 95, 6583-6585	2.5	46
85	Stabilizing Li□ Battery Through Multilayer Encapsulation of Sulfur. *Advanced Energy Materials*, **2019**, 9, 1802213	21.8	46
84	Modeling the competing phase transition pathways in nanoscale olivine electrodes. *Electrochimica Acta*, **2010**, 56, 969-976	6.7	42
83	Pressure-balance and diffuse-interface models for surficial amorphous films. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 422, 19-28	5.3	40
82	Equilibrium-thickness Amorphous Films on {112 0} surfaces of Bi2O3-doped ZnO. *Journal of the European Ceramic Society*, **1999**, 19, 697-701	6	40
81	Magnetic characterization of □MnO2 and Li2Mn2O4 prepared by electrochemical cycling of LiMn2O4. *Journal of Applied Physics*, **2000**, 87, 7382-7388	2.5	38
80	Accommodating High Transformation Strains in Battery Electrodes via the Formation of Nanoscale Intermediate Phases: Operando Investigation of Olivine NaFePO. *Nano Letters*, **2017**, 17, 1696-1702	11.5	37
79	Identification of Li-Ion Battery SEI Compounds through (7)Li and (13)C Solid-State MAS NMR Spectroscopy and MALDI-TOF Mass Spectrometry. *ACS Applied Materials & Interfaces*, **2016**, 8, 371-80	9.5	36
78	Design Rules for Membranes from Polymers of Intrinsic Microporosity for Crossover-free Aqueous Electrochemical Devices. *Joule*, **2019**, 3, 2968-2985	27.8	36
77	On the electronic conductivity of phospho-olivines as lithium storage electrodes. *Nature Materials*, **2003**, 2, 702-703	27	36
76	Ultrafast ion transport at a cathode□electrolyte interface and its strong dependence on salt solvation. *Nature Energy*, **2020**, 5, 578-586	62.3	35
75	Engineering the Transformation Strain in LiMnyFe1-yPO4 Olivines for Ultrahigh Rate Battery Cathodes. *Nano Letters*, **2016**, 16, 2375-80	11.5	35
74	Properties of lithium phosphorus oxynitride (Lipon) for 3D solid-state lithium batteries. *Journal of Materials Research*, **2010**, 25, 1507-1515	2.5	35
73	Electrochemical Characterization of High Energy Density Graphite Electrodes Made by Freeze-Casting. *ACS Applied Energy Materials*, **2018**, 1, 4976-4981	6.1	33
72	Toward electrochemical synthesis of cement-An electrolyzer-based process for decarbonating CaCO while producing useful gas streams. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 12584-12591	11.5	33

71	Electrochemical Charge Transfer Reaction Kinetics at the Silicon-Liquid Electrolyte Interface. *Journal of the Electrochemical Society*, **2015**, 162, A7129-A7134	3.9	32
70	Formulation of the coupled electrochemical-mechanical boundary-value problem, with applications to transport of multiple charged species. *Acta Materialia*, **2016**, 104, 33-51	8.4	32
69	Nature of Cation Vacancies Formed to Compensate Donors during Oxidation of Barium Titanate. *Journal of the American Ceramic Society*, **1995**, 78, 909-914	3.8	32
68	Bi segregation at ZnO grain boundaries in equilibrium with Bi2O3ZnO liquid. *Solid State Ionics*, **1995**, 75, 79-88	3.3	30
67	A low-dissipation, pumpless, gravity-induced flow battery. *Energy and Environmental Science*, **2016**, 9, 1760-1770	35.4	30
66	Effect of Concentrated Diglyme-Based Electrolytes on the Electrochemical Performance of Potassium-Ion Batteries. *ACS Applied Energy Materials*, **2019**, 2, 6051-6059	6.1	28
65	Model Experiment on Thermodynamic Stability of Retained Intergranular Amorphous Films. *Journal of the American Ceramic Society*, **2005**, 80, 1893-1896	3.8	28
64	Electroactive-Zone Extension in Flow-Battery Stacks. *Electrochimica Acta*, **2014**, 147, 460-469	6.7	27
63	Design principles for self-forming interfaces enabling stable lithium-metal anodes. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 27195-27203	11.5	27
62	Order-disorder transition in nano-rutile TiO anodes: a high capacity low-volume change Li-ion battery material. *Nanoscale*, **2019**, 11, 12347-12357	7.7	26
61	Anisotropic wetting of ZnO by Bi2O3 with and without nanometer-thick surficial amorphous films. *Acta Materialia*, **2008**, 56, 862-873	8.4	26
60	Nonequiiibrium Surface Segregation in Aluminum-Doped TiO2 under an Oxidizing Potential: Effects on Redox Color-Boundary Migration. *Journal of the American Ceramic Society*, **1990**, 73, 1633-1640	3.8	24
59	Effect of Initial Microstructure on Final Intergranular Phase Distribution in Liquid-Phase-Sintered Ceramics. *Journal of the American Ceramic Society*, **2004**, 82, 183-189	3.8	23
58	The challenges and opportunities of battery-powered flight.. *Nature*, **2022**, 601, 519-525	50.4	22
57	Semi-solid alkali metal electrodes enabling high critical current densities in solid electrolyte batteries. *Nature Energy*, **2021**, 6, 314-322	62.3	22
56	Revisiting the cold case of cold fusion. *Nature*, **2019**, 570, 45-51	50.4	21
55	Mitigating mechanical failure of crystalline silicon electrodes for lithium batteries by morphological design. *Physical Chemistry Chemical Physics*, **2015**, 17, 17718-28	3.6	21
54	Dynamics of Hydroxyl Anions Promotes Lithium Ion Conduction in Antiperovskite Li2OHCl. *Chemistry of Materials*, **2020**, 32, 8481-8491	9.6	21

53	Metal Oxide Composites for Lithium-Ion Battery Anodes Synthesized by the Partial Reduction Process. *Journal of the Electrochemical Society*, **2002**, 149, A1237	3.9	20
52	XANES Investigation of Dynamic Phase Transition in Olivine Cathode for Li-Ion Batteries. *Advanced Energy Materials*, **2015**, 5, 1500663	21.8	19
51	Comment on Interfacial Segregation in Perovskites: I-IV. *Journal of the American Ceramic Society*, **1992**, 75, 2017-2019	3.8	18
50	Modelling of redox flow battery electrode processes at a range of length scales: a review. *Sustainable Energy and Fuels*, **2020**, 4, 5433-5468	5.8	18
49	Random Walk Analysis of the Effect of Mechanical Degradation on All-Solid-State Battery Power. *Journal of the Electrochemical Society*, **2017**, 164, A2660-A2664	3.9	17
48	Connecting Particle Fracture with Electrochemical Impedance in LiXMn2O4. *Journal of the Electrochemical Society*, **2017**, 164, A3709-A3717	3.9	17
47	Strategies to Avert Electrochemical Shock and Their Demonstration in Spinels. *Journal of the Electrochemical Society*, **2014**, 161, F3005-F3009	3.9	16
46	Microstructure development in furfuryl resin-derived microporous glassy carbons. *Journal of Materials Research*, **1996**, 11, 2338-2345	2.5	16
45	Spinodal Decomposition in a K2O-Al2O3-CaO-SiO2 Glass. *Journal of the American Ceramic Society*, **1983**, 66, c171-c172	3.8	16
44	Mesoscopic Phase Transition Kinetics in Secondary Particles of Electrode-Active Materials in Lithium-Ion Batteries. *Chemistry of Materials*, **2018**, 30, 4216-4225	9.6	15
43	Producing High Concentrations of Hydrogen in Palladium via Electrochemical Insertion from Aqueous and Solid Electrolytes. *Chemistry of Materials*, **2019**, 31, 4234-4245	9.6	14
42	Electrochemomechanical Fatigue: Decoupling Mechanisms of Fracture-Induced Performance Degradation in LiXMn2O4. *Journal of the Electrochemical Society*, **2018**, 165, A2458-A2466	3.9	14
41	Pressure-Induced Pyrochlore-Perovskite Phase Transformation in PLZST Ceramics **2001**, 6, 7-12		14
40	Reply to Comment on Aliovalent Substitutions in Olivine Lithium Iron Phosphate and Impact on Structure and Properties. *Advanced Functional Materials*, **2010**, 20, 189-191	15.6	13
39	Ultrathin Conformal oCVD PEDOT Coatings on Carbon Electrodes Enable Improved Performance of Redox Flow Batteries. *Advanced Materials Interfaces*, **2020**, 7, 2000855	4.6	13
38	Generalized rheology of active materials. *Journal of Applied Physics*, **2000**, 88, 6902-6909	2.5	12
37	Reactive-infiltration processing of SiC-metal and SiC-intermetallic composites. *Journal of Materials Research*, **1996**, 11, 2346-2357	2.5	12
36	Demonstrating Near-Carbon-Free Electricity Generation from Renewables and Storage. *Joule*, **2019**, 3, 2585-2588	27.8	12

35	Spin-On thin films of YBa2Cu3O7-y and La2-SrxCuO4-y from Citrate-Polymer Precursors. *Materials Research Society Symposia Proceedings*, **1987**, 99, 307		11
34	Establishing a unified framework for ion solvation and transport in liquid and solid electrolytes. *Trends in Chemistry*, **2021**, 3, 807-818	14.8	10
33	Lowering the Bar on Battery Cost. *Joule*, **2017**, 1, 212-219	27.8	9
32	Component-cost and performance based comparison of flow and static batteries. *Journal of Power Sources*, **2015**, 293, 1032-1038	8.9	9
31	Exploration of Biomass-Derived Activated Carbons for Use in Vanadium Redox Flow Batteries. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 9472-9482	8.3	9
30	Templated self-assembly of non-close-packed colloidal crystals: Toward diamond cubic and novel heterostructures. *Journal of Materials Research*, **2011**, 26, 247-253	2.5	8
29	Comparing Physical and Electrochemical Properties of Different Weave Patterns for Carbon Cloth Electrodes in Redox Flow Batteries. *Journal of Electrochemical Energy Conversion and Storage*, **2020**, 17,	2	8
28	Data-driven electrode parameter identification for vanadium redox flow batteries through experimental and numerical methods. *Applied Energy*, **2020**, 279, 115530	10.7	8
27	Effect of transition metal substitution on elastoplastic properties of LiMn2O4 spinel. *Journal of Electroceramics*, **2017**, 38, 215-221	1.5	7
26	Nanometer-scale wetting of the silicon surface by its equilibrium oxide. *Langmuir*, **2008**, 24, 1891-6	4	7
25	Reducing Transformation Strains during Na Intercalation in Olivine FePO4 Cathodes by Mn Substitution. *ACS Applied Energy Materials*, **2019**, 2, 8060-8067	6.1	6
24	Phase-field model for diffusion-induced grain boundary migration: An application to battery electrodes. *Physical Review Materials*, **2019**, 3,	3.2	6
23	Non-Solvent Induced Phase Separation Enables Designer Redox Flow Battery Electrodes. *Advanced Materials*, **2021**, 33, e2006716	24	5
22	Apparatus for operando x-ray diffraction of fuel electrodes in high temperature solid oxide electrochemical cells. *Review of Scientific Instruments*, **2019**, 90, 023910	1.7	4
21	Quantifying reliability statistics for electrochemical shock of brittle materials. *Journal of the Mechanics and Physics of Solids*, **2014**, 70, 71-83	5	4
20	Low-profile self-sealing sample transfer flexure box. *Review of Scientific Instruments*, **2017**, 88, 083705	1.7	4
19	Enhancing the Performance of Viscous Electrode-Based Flow Batteries Using Lubricant-Impregnated Surfaces. *ACS Applied Energy Materials*, **2018**, 1, 3614-3621	6.1	4
18	Liquid-exchange processing and properties of SiC-Al composites. *Journal of Materials Research*, **1997**, 12, 1785-1789	2.5	3

17	Excess Thermodynamic Properties of Nanophase Titanium Dioxide Prepared by Chemical and Physical Methods. *Materials Research Society Symposia Proceedings*, **1992**, 286, 15		3
16	Electronically conductive phospho-olivines as lithium storage electrodes **2010**, 205-210		2
15	Exploring the Synthesis of Alkali Metal Anti-perovskites. *Chemistry of Materials*, **2022**, 34, 947-958	9.6	2
14	Phase Transitions: XANES Investigation of Dynamic Phase Transition in Olivine Cathode for Li-Ion Batteries (Adv. Energy Mater. 15/2015). *Advanced Energy Materials*, **2015**, 5, n/a-n/a	21.8	1
13	Modeling Particle Size Effects on Phase Stability and Transition Pathways in Nanosized Olivine Cathode Particles. *Materials Research Society Symposia Proceedings*, **2008**, 1100, 3041		1
12	Special Issue Ceramics Integration. Liquid-Phase Epitaxial Growth of BaTiO3 Doped(Na0.5Bi0.5)TiO3 Single Crystals on a SrTiO3 Single Crystal Substrate.. *Journal of the Ceramic Society of Japan*, **2002**, 110, 347-352		1
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