Yet-Ming Chiang

List of Publications by Year
in descending order

195 papers	25,118 citations	7069 78 h-index	6818 155 g-index
199 all docs	199 docs citations	199 times ranked	21744 citing authors

#	Article	IF	Citations
1	Electronically conductive phospho-olivines as lithium storage electrodes. Nature Materials, 2002, 1, 123-128.	13.3	2,684
2	Virus-Enabled Synthesis and Assembly of Nanowires for Lithium Ion Battery Electrodes. Science, 2006, 312, 885-888.	6.0	1,756
3	The synergetic effect of lithium polysulfide and lithium nitrate to prevent lithium dendrite growth. Nature Communications, 2015, 6, 7436.	5.8	1,250
4	Net-zero emissions energy systems. Science, 2018, 360, .	6.0	1,165
5	Mechanism of Lithium Metal Penetration through Inorganic Solid Electrolytes. Advanced Energy Materials, 2017, 7, 1701003.	10.2	780
6	Mechanism and Kinetics of Li₂S Precipitation in Lithiumâ€“Sulfur Batteries. Advanced Materials, 2015, 27, 5203-5209.	11.1	704
7	Reviewâ€”Practical Challenges Hindering the Development of Solid State Li Ion Batteries. Journal of the Electrochemical Society, 2017, 164, A1731-A1744.	1.3	536
8	Peptides with selective affinity for carbon nanotubes. Nature Materials, 2003, 2, 196-200.	13.3	520
9	Semiâ€Solid Lithium Rechargeable Flow Battery. Advanced Energy Materials, 2011, 1, 511-516.	10.2	482
10	Electrochemically-driven solid-state amorphization in lithium-silicon alloys and implications for lithium storage. Acta Materialia, 2003, 51, 1103-1113.	3.8	440
11	Towards High Power High Energy Aqueous Sodiumâ€Ion Batteries: The NaTi₂(PO₄)₃/Na_{0.44}MnO₂ System. Advanced Energy Materials, 2013, 3, 290-294.	10.2	430
12	Size-Dependent Lithium Miscibility Gap in Nanoscale Li[sub 1â^'x]FePO[sub 4]. Electrochemical and Solid-State Letters, 2007, 10, A134.	2.2	413
13	Building a Better Battery. Science, 2010, 330, 1485-1486.	6.0	413
14	Solute Segregation and Grain-Boundary Impedance in High-Purity Stabilized Zirconia. Journal of the American Ceramic Society, 1996, 79, 1169-1180.	1.9	405
15	Lead-free high-strain single-crystal piezoelectrics in the alkalineâ€“bismuthâ€“titanate perovskite family. Applied Physics Letters, 1998, 73, 3683-3685.	1.5	381
16	Long range interactions in nanoscale science. Reviews of Modern Physics, 2010, 82, 1887-1944.	16.4	359
17	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.	1.9	325
18	â€œElectrochemical Shockâ€•of Intercalation Electrodes: A Fracture Mechanics Analysis. Journal of the Electrochemical Society, 2010, 157, A1052.	1.3	274

#	ARTICLE	IF	CITATIONS
19	Microstructural Modeling and Design of Rechargeable Lithium-Ion Batteries. Journal of the Electrochemical Society, 2005, 152, A255.	1.3	269
20	Aliovalent Substitutions in Olivine Lithium Iron Phosphate and Impact on Structure and Properties. Advanced Functional Materials, 2009, 19, 1060-1070.	7.8	265
21	Design of Battery Electrodes with Dualâ€Scale Porosity to Minimize Tortuosity and Maximize Performance. Advanced Materials, 2013, 25, 1254-1258.	11.1	252
22	Storage Requirements and Costs of Shaping Renewable Energy Toward Grid Decarbonization. Joule, 2019, 3, 2134-2153.	11.7	251
23	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.	5.0	250
24	Single-particle measurements of electrochemical kinetics in NMC and NCA cathodes for Li-ion batteries. Energy and Environmental Science, 2018, 11, 860-871.	15.6	224
25	Compliant Yet Brittle Mechanical Behavior of Li₂Sâ€“P₂S₅ Lithiumâ€Ionâ€Conducting Solid Electrolyte. Advanced Energy Materials, 2017, 7, 1602011.	10.2	219
26	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.	3.3	218
27	Polysulfide Flow Batteries Enabled by Percolating Nanoscale Conductor Networks. Nano Letters, 2014, 14, 2210-2218.	4.5	201
28	Characterization of Electronic and Ionic Transport in Li₁₋_xNi_{0.33}Mn_{0.33}Co_{0.33}O₂(NMC₃₃₃ and Li₁₋_xNi_{0.50}Mn_{0.20}Co_{0.30}O₂(NMC₅₂₃ as a Function of Li Content. Journal of the Electrochemical Society, 2016, 163, A1512-A1517.	1.3	201
29	Microscale Measurements of the Electrical Conductivity of Doped LiFePO[sub 4]. Electrochemical and Solid-State Letters, 2003, 6, A278.	2.2	200
30	Three-Dimensional Growth of Li₂S in Lithiumâ€“Sulfur Batteries Promoted by a Redox Mediator. Nano Letters, 2016, 16, 549-554.	4.5	199
31	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.	5.2	191
32	Electrochemically-driven solid-state amorphization in lithiumâ€“metal anodes. Journal of Power Sources, 2003, 119-121, 604-609.	4.0	177
33	Lithium Metal Penetration Induced by Electrodeposition through Solid Electrolytes: Example in Single-Crystal Li₆La₃ZrTaO₁₂Garnet. Journal of the Electrochemical Society, 2018, 165, A3648-A3655.	1.3	172
34	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.	1.3	159
35	Ultrahighâ€Energyâ€Density Microbatteries Enabled by New Electrode Architecture and Micropackaging Design. Advanced Materials, 2010, 22, E139-44.	11.1	156
36	Introduction and Overview: Physical Properties of Nanostructured Materials. , 1997, 1, 205-209.		152

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37	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.	4.3	151
38	Air-Breathing Aqueous Sulfur Flow Battery for Ultralow-Cost Long-Duration Electrical Storage. Joule, 2017, 1, 306-327.	11.7	151
39	Design criteria for electrochemical shock resistant battery electrodes. Energy and Environmental Science, 2012, 5, 8014.	15.6	146
40	Origin of Solidâ€State Activated Sintering in Bi₂O₃â€Doped ZnO. Journal of the American Ceramic Society, 1999, 82, 916-920.	1.9	145
41	Stamped microbattery electrodes based on self-assembled M13 viruses. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 17227-17231.	3.3	144
42	The challenges and opportunities of battery-powered flight. Nature, 2022, 601, 519-525.	13.7	143
43	Reversible Aluminumâ€Ion Intercalation in Prussian Blue Analogs and Demonstration of a Highâ€Power Aluminumâ€Ion Asymmetric Capacitor. Advanced Energy Materials, 2015, 5, 1401410.	10.2	142
44	Thin Glass Film between Ultrafine Conductor Particles in Thick-Film Resistors. Journal of the American Ceramic Society, 1994, 77, 1143-1152.	1.9	136
45	Space Charge Segregation at Grain Boundaries in Titanium Dioxide: II, Model Experiments. Journal of the American Ceramic Society, 1993, 76, 2447-2459.	1.9	135
46	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.	1.9	131
47	Electronic Structure and Electrical Conductivity of Undoped LiFePO[sub 4]. Electrochemical and Solid-State Letters, 2004, 7, A131.	2.2	131
48	Reaction-formed silicon carbide. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1991, 144, 63-74.	2.6	128
49	Structure, Chemistry, and Charge Transfer Resistance of the Interface between Li₇La₃Zr₂O₁₂ Electrolyte and LiCoO₂ Cathode. Chemistry of Materials, 2018, 30, 6259-6276.	3.2	125
50	Liquid-Phase Reaction-Bonding of Silicon Carbide Using Alloyed Silicon-Molybdenum Melts. Journal of the American Ceramic Society, 1990, 73, 1193-1200.	1.9	124
51	Thermodynamic Stability of Intergranular Amorphous Films in Bismuthâ€Doped Zinc Oxide. Journal of the American Ceramic Society, 1998, 81, 89-96.	1.9	122
52	Electrochemically Induced Phase Transformation in Nanoscale Olivines Li_{1â^'x}MPO₄ (M = Fe, Mn). Chemistry of Materials, 2008, 20, 6189-6198.	3.2	121
53	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.	1.9	120
54	3D printing metals like thermoplastics: Fused filament fabrication of metallic glasses. Materials Today, 2018, 21, 697-702.	8.3	119

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55	Molecular understanding of polyelectrolyte binders that actively regulate ion transport in sulfur cathodes. Nature Communications, 2017, 8, 2277.	5.8	117
56	Wetting and Prewetting on Ceramic Surfaces. Annual Review of Materials Research, 2008, 38, 227-249.	4.3	115
57	Learning only buys you so much: Practical limits on battery price reduction. Applied Energy, 2019, 239, 218-224.	5.1	115
58	Assembly of Metal Nanoparticles into Nanogaps. Small, 2007, 3, 488-499.	5.2	114
59	An Analytical Method to Determine Tortuosity in Rechargeable Battery Electrodes. Journal of the Electrochemical Society, 2012, 159, A548-A552.	1.3	112
60	Aqueous semi-solid flow cell: demonstration and analysis. Physical Chemistry Chemical Physics, 2013, 15, 15833.	1.3	112
61	Overpotential-Dependent Phase Transformation Pathways in Lithium Iron Phosphate Battery Electrodes. Chemistry of Materials, 2010, 22, 5845-5855.	3.2	109
62	The Effect of Stress on Battery-Electrode Capacity. Journal of the Electrochemical Society, 2017, 164, A645-A654.	1.3	109
63	Toward electrochemical synthesis of cementâ€"An electrolyzer-based process for decarbonating CaCO ₃ while producing useful gas streams. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 12584-12591.	3.3	109
64	Fabrication of functionally graded reaction infiltrated SiCâ€"Si composite by three-dimensional printing (3DPâ„¢) process. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 298, 110-119.	2.6	107
65	In Situ Observation of Random Solid Solution Zone in LiFePO₄ Electrode. Nano Letters, 2014, 14, 4005-4010.	4.5	104
66	Ultrafast ion transport at a cathodeâ€"electrolyte interface and its strong dependence on salt solvation. Nature Energy, 2020, 5, 578-586.	19.8	104
67	Fabrication of Lowâ€Tortuosity Ultrahighâ€Areaâ€Capacity Battery Electrodes through Magnetic Alignment of Emulsionâ€Based Slurries. Advanced Energy Materials, 2019, 9, 1802472.	10.2	100
68	Impact of Pore Tortuosity on Electrode Kinetics in Lithium Battery Electrodes: Study in Directionally Freeze-Cast LiNi_{0.8}Co_{0.15}Al_{0.05}O₂(NCA). Journal of the Electrochemical Society, 2018, 165, A388-A395.	1.3	97
69	Characterization of Electronic and Ionic Transport in Li₁₋_xNi₀_.₈Co_{0.15}Al_{0.05}O₂. Journal of the Electrochemical Society, 2015, 162, A1163-A1169.	1.3	96
70	Size-dependent solute segregation and total solubility in ultrafine polycrystals: Ca in TiO2. Acta Metallurgica Et Materialia, 1995, 43, 319-328.	1.9	94
71	Electrochemical Redox Behavior of Li Ion Conducting Sulfide Solid Electrolytes. Chemistry of Materials, 2019, 31, 707-713.	3.2	94
72	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.	1.9	93

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73	Electronic Conductivity in the Li_{4/3}Ti_{5/3}O₄â€“Li_{7/3}Ti_{5/3}O₄ System and Variation with Stateâ€ofâ€Charge as a Li Battery Anode. Advanced Energy Materials, 2013, 3, 1125-1129.	10.2	90
74	Reaction-infiltrated, net-shape SiC composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1995, 195, 131-143.	2.6	88
75	Two-dimensional lithium diffusion behavior and probable hybrid phase transformation kinetics in olivine lithium iron phosphate. Nature Communications, 2017, 8, 1194.	5.8	85
76	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.	1.9	84
77	Design Rules for Membranes from Polymers of Intrinsic Microporosity for Crossover-free Aqueous Electrochemical Devices. Joule, 2019, 3, 2968-2985.	11.7	84
78	Maximizing Energetic Efficiency in Flow Batteries Utilizing Non-Newtonian Fluids. Journal of the Electrochemical Society, 2014, 161, A486-A496.	1.3	83
79	Spatially Resolved Modeling of Microstructurally Complex Battery Architectures. Journal of the Electrochemical Society, 2007, 154, A856.	1.3	81
80	Comparative Study of Lithium Transport Kinetics in Olivine Cathodes for Li-ion Batteries. Chemistry of Materials, 2010, 22, 1088-1097.	3.2	79
81	Supramolecular Perylene Bisimide-Polysulfide Gel Networks as Nanostructured Redox Mediators in Dissolved Polysulfide Lithiumâ€“Sulfur Batteries. Chemistry of Materials, 2015, 27, 6765-6770.	3.2	78
82	Semi-solid alkali metal electrodes enabling high critical current densities in solid electrolyte batteries. Nature Energy, 2021, 6, 314-322.	19.8	78
83	Biphasic Electrode Suspensions for Liâ€Ion Semiâ€solid Flow Cells with High Energy Density, Fast Charge Transport, and Lowâ€Dissipation Flow. Advanced Energy Materials, 2015, 5, 1500535.	10.2	76
84	Electrochemically Induced Cation Disorder and Phase Transformations in Lithium Intercalation Oxides. Chemistry of Materials, 2001, 13, 53-63.	3.2	74
85	Nanomechanical Quantification of Elastic, Plastic, and Fracture Properties of LiCoO₂. Advanced Energy Materials, 2012, 2, 940-944.	10.2	74
86	Solvent Effects on Polysulfide Redox Kinetics and Ionic Conductivity in Lithium-Sulfur Batteries. Journal of the Electrochemical Society, 2016, 163, A3111-A3116.	1.3	74
87	Modeling the hydrodynamic and electrochemical efficiency of semi-solid flow batteries. Electrochimica Acta, 2012, 69, 301-307.	2.6	73
88	Relaxor single crystals in the (Bi1/2Na1/2)1â^'xBaxZryTi1â^'yO3 system exhibiting high electrostrictive strain. Journal of Applied Physics, 2001, 90, 5287-5295.	1.1	71
89	Improving the Capacity of Sodium Ion Battery Using a Virus-Templated Nanostructured Composite Cathode. Nano Letters, 2015, 15, 2917-2921.	4.5	70
90	Mechanical instability of electrode-electrolyte interfaces in solid-state batteries. Physical Review Materials, 2018, 2, .	0.9	69

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91	Effect of Electrochemical Charging on Elastoplastic Properties and Fracture Toughness of Li_XCoO₂. Journal of the Electrochemical Society, 2014, 161, F3084-F3090.	1.3	68
92	Electron microscopic characterization of electrochemically cycled LiCoO2 and Li(Al,Co)O2 battery cathodes. Journal of Power Sources, 1999, 81-82, 594-598.	4.0	67
93	Stabilizing Liâ€“S Battery Through Multilayer Encapsulation of Sulfur. Advanced Energy Materials, 2019, 9, 1802213.	10.2	66
94	Na3Ti2(PO4)3 as a sodium-bearing anode for rechargeable aqueous sodium-ion batteries. Electrochemistry Communications, 2014, 44, 12-15.	2.3	63
95	Nanometer-Thick Surficial Films in Oxides as a Case of Prewetting. Langmuir, 2005, 21, 7358-7365.	1.6	62
96	Comparative studies of the electronic structure of LiFePO4, FePO4, Li3PO4, LiMnPO4, LiCoPO4, and LiNiPO4. Journal of Applied Physics, 2004, 95, 6583-6585.	1.1	58
97	Electrochemical Characterization of High Energy Density Graphite Electrodes Made by Freeze-Casting. ACS Applied Energy Materials, 2018, 1, 4976-4981.	2.5	58
98	Measurements of Excess Enthalpy in Ultrafine-Grained Titanium Dioxide. Journal of the American Ceramic Society, 1995, 78, 2045-2055.	1.9	57
99	Spin-glass behavior in LiMn2O4 spinel. Applied Physics Letters, 1999, 74, 2504-2506.	1.5	53
100	Dynamics of Hydroxyl Anions Promotes Lithium Ion Conduction in Antiperovskite Li₂OHCl. Chemistry of Materials, 2020, 32, 8481-8491.	3.2	53
101	On the electronic conductivity of phospho-olivines as lithium storage electrodes. Nature Materials, 2003, 2, 702-703.	13.3	52
102	Electrochemical Shock in Ion-Intercalation Materials with Limited Solid-Solubility. Journal of the Electrochemical Society, 2013, 160, A1286-A1292.	1.3	52
103	Electrochemical Charge Transfer Reaction Kinetics at the Silicon-Liquid Electrolyte Interface. Journal of the Electrochemical Society, 2015, 162, A7129-A7134.	1.3	49
104	Identification of Li-Ion Battery SEI Compounds through ⁷Li and ¹³C Solid-State MAS NMR Spectroscopy and MALDI-TOF Mass Spectrometry. ACS Applied Materials & Interfaces, 2016, 8, 371-380.	4.0	49
105	Accommodating High Transformation Strains in Battery Electrodes via the Formation of Nanoscale Intermediate Phases: Operando Investigation of Olivine NaFePO₄. Nano Letters, 2017, 17, 1696-1702.	4.5	49
106	Revisiting the cold case of cold fusion. Nature, 2019, 570, 45-51.	13.7	48
107	Engineering the Transformation Strain in LiMn_yFe_{1â€“y}PO₄ Olivines for Ultrahigh Rate Battery Cathodes. Nano Letters, 2016, 16, 2375-2380.	4.5	45
108	Formulation of the coupled electrochemicalâ€“mechanical boundary-value problem, with applications to transport of multiple charged species. Acta Materialia, 2016, 104, 33-51.	3.8	44

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109	Effect of Concentrated Diglyme-Based Electrolytes on the Electrochemical Performance of Potassium-Ion Batteries. ACS Applied Energy Materials, 2019, 2, 6051-6059.	2.5	44
110	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.	3.3	44
111	Modeling the competing phase transition pathways in nanoscale olivine electrodes. Electrochimica Acta, 2010, 56, 969-976.	2.6	43
112	Equilibrium-thickness Amorphous Films on {} surfaces of Bi2O3-doped ZnO. Journal of the European Ceramic Society, 1999, 19, 697-701.	2.8	42
113	Pressure-balance and diffuse-interface models for surficial amorphous films. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 422, 19-28.	2.6	41
114	Magnetic characterization of Î»-MnO2 and Li2Mn2O4 prepared by electrochemical cycling of LiMn2O4. Journal of Applied Physics, 2000, 87, 7382-7388.	1.1	40
115	Orderâ€“disorder transition in nano-rutile TiO₂ anodes: a high capacity low-volume change Li-ion battery material. Nanoscale, 2019, 11, 12347-12357.	2.8	40
116	Properties of lithium phosphorus oxynitride (Lipon) for 3D solid-state lithium batteries. Journal of Materials Research, 2010, 25, 1507-1515.	1.2	39
117	A low-dissipation, pumpless, gravity-induced flow battery. Energy and Environmental Science, 2016, 9, 1760-1770.	15.6	39
118	Nature of Cation Vacancies Formed to Compensate Donors during Oxidation of Barium Titanate. Journal of the American Ceramic Society, 1995, 78, 909-914.	1.9	38
119	Bi segregation at ZnO grain boundaries in equilibrium with Bi2O3ZnO liquid. Solid State Ionics, 1995, 75, 79-88.	1.3	36
120	Nonâ€Solvent Induced Phase Separation Enables Designer Redox Flow Battery Electrodes. Advanced Materials, 2021, 33, e2006716.	11.1	35
121	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, .	1.1	35
122	Electroactive-Zone Extension in Flow-Battery Stacks. Electrochimica Acta, 2014, 147, 460-469.	2.6	34
123	Exploration of Biomass-Derived Activated Carbons for Use in Vanadium Redox Flow Batteries. ACS Sustainable Chemistry and Engineering, 2020, 8, 9472-9482.	3.2	33
124	Producing High Concentrations of Hydrogen in Palladium via Electrochemical Insertion from Aqueous and Solid Electrolytes. Chemistry of Materials, 2019, 31, 4234-4245.	3.2	32
125	Model Experiment on Thermodynamic Stability of Retained Intergranular Amorphous Films. Journal of the American Ceramic Society, 1997, 80, 1893-1896.	1.9	30
126	Modelling of redox flow battery electrode processes at a range of length scales: a review. Sustainable Energy and Fuels, 2020, 4, 5433-5468.	2.5	29

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127	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.	1.9	28
128	Anisotropic wetting of ZnO by Bi2O3 with and without nanometer-thick surficial amorphous films. Acta Materialia, 2008, 56, 862-873.	3.8	28
129	Establishing a unified framework for ion solvation and transport in liquid and solid electrolytes. Trends in Chemistry, 2021, 3, 807-818.	4.4	27
130	Data-driven electrode parameter identification for vanadium redox flow batteries through experimental and numerical methods. Applied Energy, 2020, 279, 115530.	5.1	26
131	Mitigating mechanical failure of crystalline silicon electrodes for lithium batteries by morphological design. Physical Chemistry Chemical Physics, 2015, 17, 17718-17728.	1.3	25
132	Effect of Initial Microstructure on Final Intergranular Phase Distribution in Liquidâ€Phaseâ€Sintered Ceramics. Journal of the American Ceramic Society, 1999, 82, 183-189.	1.9	24
133	XANES Investigation of Dynamic Phase Transition in Olivine Cathode for Liâ€Ion Batteries. Advanced Energy Materials, 2015, 5, 1500663.	10.2	22
134	Electrochemomechanical Fatigue: Decoupling Mechanisms of Fracture-Induced Performance Degradation in Li_XMn₂O₄. Journal of the Electrochemical Society, 2018, 165, A2458-A2466.	1.3	22
135	Ultrathin Conformal oCVD PEDOT Coatings on Carbon Electrodes Enable Improved Performance of Redox Flow Batteries. Advanced Materials Interfaces, 2020, 7, 2000855.	1.9	22
136	Metal Oxide Composites for Lithium-Ion Battery Anodes Synthesized by the Partial Reduction Process. Journal of the Electrochemical Society, 2002, 149, A1237.	1.3	21
137	Demonstrating Near-Carbon-Free Electricity Generation from Renewables and Storage. Joule, 2019, 3, 2585-2588.	11.7	21
138	Comment on "Interfacial Segregation in Perovskites: I-IV". Journal of the American Ceramic Society, 1992, 75, 2017-2019.	1.9	19
139	Random Walk Analysis of the Effect of Mechanical Degradation on All-Solid-State Battery Power. Journal of the Electrochemical Society, 2017, 164, A2660-A2664.	1.3	19
140	Microstructure development in furfuryl resin-derived microporous glassy carbons. Journal of Materials Research, 1996, 11, 2338-2345.	1.2	18
141	Reply to Comment on â€œAliovalent Substitutions in Olivine Lithium Iron Phosphate and Impact on Structure and Propertiesâ€• Advanced Functional Materials, 2010, 20, 189-191.	7.8	18
142	Connecting Particle Fracture with Electrochemical Impedance in Li_XMn₂O₄. Journal of the Electrochemical Society, 2017, 164, A3709-A3717.	1.3	18
143	Mesoscopic Phase Transition Kinetics in Secondary Particles of Electrode-Active Materials in Lithium-Ion Batteries. Chemistry of Materials, 2018, 30, 4216-4225.	3.2	18
144	Spinodal Decomposition in a K2O-Al2O3-CaO-SiO2 Glass. Journal of the American Ceramic Society, 1983, 66, c171-c172.	1.9	17

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145	Strategies to Avert Electrochemical Shock and Their Demonstration in Spinels. Journal of the Electrochemical Society, 2014, 161, F3005-F3009.	1.3	17
146	Generalized rheology of active materials. Journal of Applied Physics, 2000, 88, 6902-6909.	1.1	15
147	Reducing Transformation Strains during Na Intercalation in Olivine FePO₄ Cathodes by Mn Substitution. ACS Applied Energy Materials, 2019, 2, 8060-8067.	2.5	15
148	Pressure-Induced Pyrochlore-Perovskite Phase Transformation in PLZST Ceramics. , 2001, 6, 7-12.		14
149	Exploring the Synthesis of Alkali Metal Anti-perovskites. Chemistry of Materials, 2022, 34, 947-958.	3.2	13
150	Microstructural engineering of high-power redox flow battery electrodes via non-solvent induced phase separation. Cell Reports Physical Science, 2022, 3, 100943.	2.8	13
151	Reactive-infiltration processing of SiC-metal and SiC-intermetallic composites. Journal of Materials Research, 1996, 11, 2346-2357.	1.2	12
152	Component-cost and performance based comparison of flow and static batteries. Journal of Power Sources, 2015, 293, 1032-1038.	4.0	12
153	Spin-On thin films of YBa₂Cu₃O_{7-y} and La_{2â^'x}Sr_xCuO_{4-y} from Citrate-Polymer Precursors. Materials Research Society Symposia Proceedings, 1987, 99, 307.	0.1	11
154	Lowering the Bar on Battery Cost. Joule, 2017, 1, 212-219.	11.7	11
155	Limited Accessibility to Surface Area Generated by Thermal Pretreatment of Electrodes Reduces Its Impact on Redox Flow Battery Performance. ACS Applied Energy Materials, 2021, 4, 13516-13527.	2.5	11
156	Microelectrode-Based Sensor for Measuring Operando Active Species Concentrations in Redox Flow Cells. ACS Applied Energy Materials, 2021, 4, 13830-13840.	2.5	11
157	Phase-field model for diffusion-induced grain boundary migration: An application to battery electrodes. Physical Review Materials, 2019, 3, .	0.9	10
158	Templated self-assembly of non-close-packed colloidal crystals: Toward diamond cubic and novel heterostructures. Journal of Materials Research, 2011, 26, 247-253.	1.2	8
159	Effect of transition metal substitution on elastoplastic properties of LiMn2O4 spinel. Journal of Electroceramics, 2017, 38, 215-221.	0.8	8
160	Enhancing the Performance of Viscous Electrode-Based Flow Batteries Using Lubricant-Impregnated Surfaces. ACS Applied Energy Materials, 2018, 1, 3614-3621.	2.5	8
161	Nanometer-Scale Wetting of the Silicon Surface by Its Equilibrium Oxide. Langmuir, 2008, 24, 1891-1896.	1.6	7
162	A Comparative Study of Compressive Effects on the Morphology and Performance of Carbon Paper and Cloth Electrodes in Redox Flow Batteries. Energy Technology, 2022, 10, .	1.8	7

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163	Apparatus for operando x-ray diffraction of fuel electrodes in high temperature solid oxide electrochemical cells. Review of Scientific Instruments, 2019, 90, 023910.	0.6	6
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165	Leveraging Neural Networks and Genetic Algorithms to Refine Electrode Properties in Redox Flow Batteries. Journal of the Electrochemical Society, 2021, 168, 050547.	1.3	5
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