Esther S Takeuchi

List of Publications by Citations

234 papers	5,323 citations	41 h-index	60 g-index
252 ext. papers	6,692 ext. citations	8.7 avg, IF	5.95 L-index

#	Paper	IF	Citations
234	Reversible epitaxial electrodeposition of metals in battery anodes. *Science*, **2019**, 366, 645-648	33.3	512
233	Batteries used to Power Implantable Biomedical Devices. *Electrochimica Acta*, **2012**, 84, 155-155	6.7	198
232	A Tunable 3D Nanostructured Conductive Gel Framework Electrode for High-Performance Lithium Ion Batteries. *Advanced Materials*, **2017**, 29, 1603922	24	124
231	Nanostructured Conductive Polymer Gels as a General Framework Material To Improve Electrochemical Performance of Cathode Materials in Li-Ion Batteries. *Nano Letters*, **2017**, 17, 1906-1914	11.5	107
230	Batteries. In situ visualization of Li/Ag□VPO□batteries revealing rate-dependent discharge mechanism. *Science*, **2015**, 347, 149-54	33.3	98
229	Synthesis of cryptomelane type □MnO2 (KxMn8O16) cathode materials with tunable K+ content: the role of tunnel cation concentration on electrochemistry. *Journal of Materials Chemistry A*, **2017**, 5, 16914-16928	13	73
228	Electrochemical reduction of silver vanadium phosphorous oxide, Ag(2)VO(2)PO(4): the formation of electrically conductive metallic silver nanoparticles. *Chemistry of Materials*, **2009**, 21, 4934-4939	9.6	73
227	Nanocrystalline iron oxide based electroactive materials in lithium ion batteries: the critical role of crystallite size, morphology, and electrode heterostructure on battery relevant electrochemistry. *Inorganic Chemistry Frontiers*, **2016**, 3, 26-40	6.8	70
226	Structural Defects of Silver Hollandite, Ag(x)Mn8O(y), Nanorods: Dramatic Impact on Electrochemistry. *ACS Nano*, **2015**, 9, 8430-9	16.7	68
225	Multiscale Understanding and Architecture Design of High Energy/Power Lithium-Ion Battery Electrodes. *Advanced Energy Materials*, **2021**, 11, 2000808	21.8	65
224	Spontaneous and field-induced crystallographic reorientation of metal electrodeposits at battery anodes. *Science Advances*, **2020**, 6, eabb1122	14.3	64
223	Promoting Transport Kinetics in Li-Ion Battery with Aligned Porous Electrode Architectures. *Nano Letters*, **2019**, 19, 8255-8261	11.5	62
222	Magnesium-ion battery-relevant electrochemistry of MgMnO: crystallite size effects and the notable role of electrolyte water content. *Chemical Communications*, **2017**, 53, 3665-3668	5.8	58
221	SWNT Anchored with Carboxylated Polythiophene "Links" on High-Capacity Li-Ion Battery Anode Materials. *Journal of the American Chemical Society*, **2018**, 140, 5666-5669	16.4	57
220	Insights into Ionic Transport and Structural Changes in Magnetite during Multiple-Electron Transfer Reactions. *Advanced Energy Materials*, **2016**, 6, 1502471	21.8	57
219	Interaction of TiS2and Sulfur in Li-S Battery System. *Journal of the Electrochemical Society*, **2017**, 164, A1291-A1297	3.9	55
218	Interaction of CuS and Sulfur in Li-S Battery System. *Journal of the Electrochemical Society*, **2015**, 162, A2834-A2839	3.9	55

217	Structural and Electrochemical Characteristics of Ca-Doped Flower-like Li4Ti5O12 Motifs as High-Rate Anode Materials for Lithium-Ion Batteries. *Chemistry of Materials*, **2018**, 30, 671-684	9.6	51
216	Two-Dimensional Holey Nanoarchitectures Created by Confined Self-Assembly of Nanoparticles via Block Copolymers: From Synthesis to Energy Storage Property. *ACS Nano*, **2018**, 12, 820-828	16.7	51
215	Regulating electrodeposition morphology in high-capacity aluminium and zinc battery anodes using interfacial metal substrate bonding. *Nature Energy*, **2021**, 6, 398-406	62.3	51
214	Battery Electrolytes Based on Unsaturated Ring Ionic Liquids: Conductivity and Electrochemical Stability. *Journal of the Electrochemical Society*, **2013**, 160, A1399-A1405	3.9	50
213	Probing the Li Insertion Mechanism of ZnFe2O4 in Li-Ion Batteries: A Combined X-Ray Diffraction, Extended X-Ray Absorption Fine Structure, and Density Functional Theory Study. *Chemistry of Materials*, **2017**, 29, 4282-4292	9.6	48
212	Synthesis and characterization of sodium vanadium oxide gels: the effects of water (n) and sodium (x) content on the electrochemistry of Na(x)V2O5 nH2O. *Physical Chemistry Chemical Physics*, **2011**, 13, 18047-54	3.6	48
211	Carbon nanotube substrate electrodes for lightweight, long-life rechargeable batteries. *Energy and Environmental Science*, **2011**, 4, 2943	35.4	48
210	Electrochemical Reduction of Silver Vanadium Phosphorous Oxide, Ag(2)VO(2)PO(4): Silver Metal Deposition and Associated Increase in Electrical Conductivity. *Journal of Power Sources*, **2010**, 195, 6839-6846	8.9	48
209	Morphological and Chemical Tuning of High-Energy-Density Metal Oxides for Lithium Ion Battery Electrode Applications. *ACS Energy Letters*, **2017**, 2, 1465-1478	20.1	47
208	Electron/Ion Transport Enhancer in High Capacity Li-Ion Battery Anodes. *Chemistry of Materials*, **2016**, 28, 6689-6697	9.6	47
207	Crystallite Size Control and Resulting Electrochemistry of Magnetite, Fe[sub 3]O[sub 4]. *Electrochemical and Solid-State Letters*, **2009**, 12, A91		47
206	Investigation of MnO Tunneled Structures as Model Cation Hosts for Energy Storage. *Accounts of Chemical Research*, **2018**, 51, 575-582	24.3	46
205	Ionic Liquid Hybrid Electrolytes for Lithium-Ion Batteries: A Key Role of the Separator-Electrolyte Interface in Battery Electrochemistry. *ACS Applied Materials & Interfaces*, **2015**, 7, 11724-31	9.5	45
204	Visualization of lithium-ion transport and phase evolution within and between manganese oxide nanorods. *Nature Communications*, **2017**, 8, 15400	17.4	44
203	Effective recycling of manganese oxide cathodes for lithium based batteries. *Green Chemistry*, **2016** , 18, 3414-3421	10	44
202	Nanocrystalline Magnetite: Synthetic Crystallite Size Control and Resulting Magnetic and Electrochemical Properties. *Journal of the Electrochemical Society*, **2010**, 157, A1158	3.9	44
201	Multi-Stage Structural Transformations in Zero-Strain Lithium Titanate Unveiled by in Situ X-ray Absorption Fingerprints. *Journal of the American Chemical Society*, **2017**, 139, 16591-16603	16.4	43
200	Evaporation-Induced Vertical Alignment Enabling Directional Ion Transport in a 2D-Nanosheet-Based Battery Electrode. *Advanced Materials*, **2020**, 32, e1907941	24	43

199	Enhanced Performance of "Flower-like" Li4Ti5O12 Motifs as Anode Materials for High-Rate Lithium-Ion Batteries. *ChemSusChem*, **2015**, 8, 3304-13	8.3	42
198	Lithiation Mechanism of Tunnel-Structured MnO Electrode Investigated by In Situ Transmission Electron Microscopy. *Advanced Materials*, **2017**, 29, 1703186	24	41
197	Synthetic control of composition and crystallite size of silver hollandite, Ag(x)Mn8O16: impact on electrochemistry. *ACS Applied Materials & Interfaces*, **2012**, 4, 5547-54	9.5	41
196	Energy dispersive X-ray diffraction of lithium□silver vanadium phosphorous oxide cells: in situ cathode depth profiling of an electrochemical reduction□displacement reaction. *Energy and Environmental Science*, **2013**, 6, 1465	35.4	41
195	Preparation and Electrochemistry of Silver Vanadium Phosphorous Oxide, Ag[sub 2]VO[sub 2]PO[sub 4]. *Electrochemical and Solid-State Letters*, **2009**, 12, A5		41
194	Understanding Thickness-Dependent Transport Kinetics in Nanosheet-Based Battery Electrodes. *Chemistry of Materials*, **2020**, 32, 1684-1692	9.6	40
193	Size dependent behavior of FeO crystals during electrochemical (de)lithiation: an in situ X-ray diffraction, ex situ X-ray absorption spectroscopy, transmission electron microscopy and theoretical investigation. *Physical Chemistry Chemical Physics*, **2017**, 19, 20867-20880	3.6	40
192	A Kinetics and Equilibrium Study of Vanadium Dissolution from Vanadium Oxides and Phosphates in Battery Electrolytes: Possible Impacts on ICD Battery Performance. *Journal of Power Sources*, **2013**, 231, 219-225	8.9	39
191	Dispersion of Nanocrystalline Fe3O4 within Composite Electrodes: Insights on Battery-Related Electrochemistry. *ACS Applied Materials & Interfaces*, **2016**, 8, 11418-30	9.5	39
190	A first principles study of spinel ZnFeO for electrode materials in lithium-ion batteries. *Physical Chemistry Chemical Physics*, **2017**, 19, 26322-26329	3.6	38
189	Modeling the Mesoscale Transport of Lithium-Magnetite Electrodes Using Insight from Discharge and Voltage Recovery Experiments. *Journal of the Electrochemical Society*, **2015**, 162, A2817-A2826	3.9	38
188	2D Cross Sectional Analysis and Associated Electrochemistry of Composite Electrodes Containing Dispersed Agglomerates of Nanocrystalline Magnetite, Fe□□*ACS Applied Materials & Interfaces*, **2015**, 7, 13457-66	9.5	38
187	Synthesis, spectroscopic characterization, and observation of massive metal-insulator transitions in nanowires of a nonstoichiometric vanadium oxide bronze. *Nano Letters*, **2010**, 10, 2448-53	11.5	38
186	Toward Uniformly Dispersed Battery Electrode Composite Materials: Characteristics and Performance. *ACS Applied Materials & Interfaces*, **2016**, 8, 3452-63	9.5	37
185	An X-ray Absorption Spectroscopy Study of the Cathodic Discharge of Ag2VO2PO4: Geometric and Electronic Structure Characterization of Intermediate phases and Mechanistic Insights. *Journal of Physical Chemistry C*, **2011**, 115, 14437-14447	3.8	37
184	Investigation of Structural Evolution of Li1.1V3O8 by In Situ X-ray Diffraction and Density Functional Theory Calculations. *Chemistry of Materials*, **2017**, 29, 2364-2373	9.6	36
183	Interaction of FeS2and Sulfur in Li-S Battery System. *Journal of the Electrochemical Society*, **2017**, 164, A6039-A6046	3.9	36
182	Carbon Nanotube Web with Carboxylated Polythiophene "Assist" for High-Performance Battery Electrodes. *ACS Nano*, **2018**, 12, 3126-3139	16.7	35

181	Investigating the Complex Chemistry of Functional Energy Storage Systems: The Need for an Integrative, Multiscale (Molecular to Mesoscale) Perspective. *ACS Central Science*, **2016**, 2, 380-7	16.8	35
180	MxMn□□(M = Ag or K) as promising cathode materials for secondary Mg based batteries: the role of the cation M. *Chemical Communications*, **2016**, 52, 4088-91	5.8	34
179	From Fundamental Understanding to Engineering Design of High-Performance Thick Electrodes for Scalable Energy-Storage Systems. *Advanced Materials*, **2021**, 33, e2101275	24	34
178	Peering into Batteries: Electrochemical Insight Through In Situ and Operando Methods over Multiple Length Scales. *Joule*, **2021**, 5, 77-88	27.8	34
177	Holy Grails in Chemistry: Investigating and Understanding Fast Electron/Cation Coupled Transport within Inorganic Ionic Matrices. *Accounts of Chemical Research*, **2017**, 50, 544-548	24.3	33
176	Lithium Batteries for Biomedical Applications. *MRS Bulletin*, **2002**, 27, 624-627	3.2	33
175	Silver-Containing □MnO Nanorods: Electrochemistry in Na-Based Battery Systems. *ACS Applied Materials & Interfaces*, **2017**, 9, 4333-4342	9.5	32
174	Synthesis and Electrochemistry of Silver Hollandite. *Electrochemical and Solid-State Letters*, **2010**, 13, A98		32
173	Variation in the iron oxidation states of magnetite nanocrystals as a function of crystallite size: The impact on electrochemical capacity. *Electrochimica Acta*, **2013**, 94, 320-326	6.7	31
172	Electrochemical discharge of nanocrystalline magnetite: structure analysis using X-ray diffraction and X-ray absorption spectroscopy. *Physical Chemistry Chemical Physics*, **2013**, 15, 18539-48	3.6	30
171	Investigation of Solid Electrolyte Interphase Layer Formation and Electrochemical Reversibility of Magnetite, Fe3O4, Electrodes: A Combined X-ray Absorption Spectroscopy and X-ray Photoelectron Spectroscopy Study. *Journal of Physical Chemistry C*, **2018**, 122, 14257-14271	3.8	28
170	Silver Vanadium Phosphorous Oxide, Ag(2)VO(2)PO(4): Chimie Douce Preparation and Resulting Lithium Cell Electrochemistry. *Journal of Power Sources*, **2011**, 196, 6781-6787	8.9	28
169	Quantitative temporally and spatially resolved X-ray fluorescence microprobe characterization of the manganese dissolution-deposition mechanism in aqueous Zn/□MnO2 batteries. *Energy and Environmental Science*, **2020**, 13, 4322-4333	35.4	28
168	Tunnel Structured □MnO2with Different Tunnel Cations (H+, K+, Ag+) as Cathode Materials in Rechargeable Lithium Batteries: The Role of Tunnel Cation on Electrochemistry. *Journal of the Electrochemical Society*, **2017**, 164, A1983-A1990	3.9	26
167	Size-dependent kinetics during non-equilibrium lithiation of nano-sized zinc ferrite. *Nature Communications*, **2019**, 10, 93	17.4	26
166	Correlating Titania Nanostructured Morphologies with Performance as Anode Materials for Lithium-Ion Batteries. *ACS Sustainable Chemistry and Engineering*, **2016**, 4, 6299-6312	8.3	25
165	The Electrochemistry of Silver Hollandite Nanorods, AgxMn8O16: Enhancement of Electrochemical Battery Performance via Dimensional and Compositional Control. *Journal of the Electrochemical Society*, **2013**, 160, A3090-A3094	3.9	25
164	Synthesis and Characterization of CuFeO Nano/Submicron Wire-Carbon Nanotube Composites as Binder-free Anodes for Li-Ion Batteries. *ACS Applied Materials & Interfaces*, **2018**, 10, 8770-8785	9.5	24

163	Revealing and Rationalizing the Rich Polytypism of Todorokite MnO. *Journal of the American Chemical Society*, **2018**, 140, 6961-6968	16.4	24
162	Synthetic control of composition and crystallite size of silver ferrite composites: profound electrochemistry impacts. *Chemical Communications*, **2015**, 51, 5120-3	5.8	24
161	Ag(x)VOPO(4): A Demonstration of the Dependence of Battery-Related Electrochemical Properties of Silver Vanadium Phosphorous Oxides on Ag / V Ratios. *Journal of Power Sources*, **2011**, 196, 3325-3330	8.9	24
160	In situ profiling of lithium/Ag□VPO□ primary batteries using energy dispersive X-ray diffraction. *Physical Chemistry Chemical Physics*, **2014**, 16, 9138-47	3.6	23
159	Battery electrolytes based on saturated ring ionic liquids: Physical and electrochemical properties. *Electrochimica Acta*, **2013**, 109, 27-32	6.7	23
158	Unveiling the dimensionality effect of conductive fillers in thick battery electrodes for high-energy storage systems. *Applied Physics Reviews*, **2020**, 7, 041405	17.3	23
157	Unraveling the Dissolution-Mediated Reaction Mechanism of □MnO Cathodes for Aqueous Zn-Ion Batteries. *Small*, **2020**, 16, e2005406	11	22
156	The challenges and opportunities of battery-powered flight.. *Nature*, **2022**, 601, 519-525	50.4	22
155	Anode Overpotential Control via Interfacial Modification: Inhibition of Lithium Plating on Graphite Anodes. *ACS Applied Materials & Interfaces*, **2019**, 11, 46864-46874	9.5	22
154	Nonplanar Electrode Architectures for Ultrahigh Areal Capacity Batteries. *ACS Energy Letters*, **2019**, 4, 271-275	20.1	22
153	New Insights into the Reaction Mechanism of Sodium Vanadate for an Aqueous Zn Ion Battery. *Chemistry of Materials*, **2020**, 32, 2053-2060	9.6	21
152	Lithiation of Magnetite (Fe3O4): Analysis Using Isothermal Microcalorimetry and Operando X-ray Absorption Spectroscopy. *Journal of Physical Chemistry C*, **2018**, 122, 10316-10326	3.8	21
151	Ex Situ and Operando XRD and XAS Analysis of MoS2: A Lithiation Study of Bulk and Nanosheet Materials. *ACS Applied Energy Materials*, **2019**, 2, 7635-7646	6.1	20
150	Systems-level investigation of aqueous batteries for understanding the benefit of water-in-salt electrolyte by synchrotron nanoimaging. *Science Advances*, **2020**, 6, eaay7129	14.3	20
149	Impact of Multifunctional Bimetallic Materials on Lithium Battery Electrochemistry. *Accounts of Chemical Research*, **2016**, 49, 1864-72	24.3	20
148	Redox chemistry of a binary transition metal oxide (AB2O4): a study of the Cu(2+)/Cu(0) and Fe(3+)/Fe(0) interconversions observed upon lithiation in a CuFe2O4 battery using X-ray absorption spectroscopy. *Physical Chemistry Chemical Physics*, **2016**, 18, 16930-40	3.6	20
147	Visualization of structural evolution and phase distribution of a lithium vanadium oxide (LiVO) electrode via an operando and in situ energy dispersive X-ray diffraction technique. *Physical Chemistry Chemical Physics*, **2017**, 19, 14160-14169	3.6	19
146	Understanding aggregation hindered Li-ion transport in transition metal oxide at mesoscale. *Energy Storage Materials*, **2019**, 19, 439-445	19.4	19

145	Silver vanadium oxide and silver vanadium phosphorous oxide dissolution kinetics: a mechanistic study with possible impact on future ICD battery lifetimes. *Dalton Transactions*, **2013**, 42, 13981-9	4.3	19
144	Tunable Porous Electrode Architectures for Enhanced Li-Ion Storage Kinetics in Thick Electrodes. *Nano Letters*, **2021**, 21, 5896-5904	11.5	19
143	Essential Role of Spinel ZnFeO Surfaces during Lithiation. *ACS Applied Materials & Interfaces*, **2018**, 10, 35623-35630	9.5	19
142	Multi-electron transfer enabled by topotactic reaction in magnetite. *Nature Communications*, **2019**, 10, 1972	17.4	18
141	Probing Sources of Capacity Fade in LiNi0.6Mn0.2Co0.2O2 (NMC622): An Operando XRD Study of Li/NMC622 Batteries during Extended Cycling. *Journal of Physical Chemistry C*, **2020**, 124, 8119-8128	3.8	18
140	Deliberate modification of the solid electrolyte interphase (SEI) during lithiation of magnetite, FeO: impact on electrochemistry. *Chemical Communications*, **2017**, 53, 13145-13148	5.8	18
139	Insights into Reactivity of Silicon Negative Electrodes: Analysis Using Isothermal Microcalorimetry. *ACS Applied Materials & Interfaces*, **2019**, 11, 37567-37577	9.5	17
138	Electrochemical reduction of an Ag2VO2PO4 particle: dramatic increase of local electronic conductivity. *Physical Chemistry Chemical Physics*, **2015**, 17, 11204-10	3.6	17
137	Potassium-Based Manganese Dioxide Nanofiber Binder-Free Self-Supporting Electrodes: A Design Strategy for High Energy Density Batteries. *Energy Technology*, **2016**, 4, 1358-1368	3.5	17
136	Probing Titanium Disulfide-Sulfur Composite Materials for Li-S Batteries via In Situ X-ray Diffraction (XRD). *Journal of the Electrochemical Society*, **2017**, 164, A897-A901	3.9	16
135	Carbon nanotube metal oxide composite electrodes for secondary lithium-based batteries. *Journal of Composite Materials*, **2013**, 47, 41-49	2.7	16
134	Discharge, Relaxation, and Charge Model for the Lithium Trivanadate Electrode: Reactions, Phase Change, and Transport. *Journal of the Electrochemical Society*, **2016**, 163, A2890-A2898	3.9	16
133	Energetics of Lithium Insertion into Magnetite, Defective Magnetite, and Maghemite. *Chemistry of Materials*, **2018**, 30, 7922-7937	9.6	16
132	The Electrochemistry of Fe3O4/Polypyrrole Composite Electrodes in Lithium-Ion Cells: The Role of Polypyrrole in Capacity Retention. *Journal of the Electrochemical Society*, **2017**, 164, A6260-A6267	3.9	15
131	Operando Study of LiV3O8Cathode: Coupling EDXRD Measurements to Simulations. *Journal of the Electrochemical Society*, **2018**, 165, A371-A379	3.9	15
130	Mapping the anode surface-electrolyte interphase: investigating a life limiting process of lithium primary batteries. *ACS Applied Materials & Interfaces*, **2015**, 7, 5429-37	9.5	15
129	Silver Vanadium Phosphorous Oxide, Ag0.48VOPO4: Exploration as a Cathode Material in Primary and Secondary Battery Applications. *Journal of the Electrochemical Society*, **2012**, 159, A1690-A1695	3.9	15
128	Defect Control in the Synthesis of 2 D MoS Nanosheets: Polysulfide Trapping in Composite Sulfur Cathodes for Li-S Batteries. *ChemSusChem*, **2020**, 13, 1517-1528	8.3	15

127	Energy dispersive X-ray diffraction (EDXRD) for operando materials characterization within batteries. *Physical Chemistry Chemical Physics*, **2020**, 22, 20972-20989	3.6	15
126	Ultrahigh-Capacity and Scalable Architected Battery Electrodes Tortuosity Modulation. *ACS Nano*, **2021**,	16.7	15
125	Isothermal Microcalorimetry: Insight into the Impact of Crystallite Size and Agglomeration on the Lithiation of Magnetite, FeO. *ACS Applied Materials & Interfaces*, **2019**, 11, 7074-7086	9.5	14
124	Silver-Containing □MnO2□Nanorods: Electrochemistry in Rechargeable Aqueous Zn-MnO2 Batteries. *Journal of the Electrochemical Society*, **2019**, 166, A3575-A3584	3.9	14
123	Silver Vanadium Diphosphate AgVPO: Electrochemistry and Characterization of Reduced Material providing Mechanistic Insights. *Journal of Solid State Chemistry*, **2013**, 200, 232-240	3.3	14
122	Achieving Stable Molybdenum Oxide Cathodes for Aqueous Zinc-Ion Batteries in Water-in-Salt Electrolyte. *Advanced Materials Interfaces*, **2021**, 8, 2002080	4.6	14
121	Electrochemical reduction of Ag2VP2O8 composite electrodes visualized via in situ energy dispersive X-ray diffraction (EDXRD): unexpected conductive additive effects. *Journal of Materials Chemistry A*, **2015**, 3, 18027-18035	13	13
120	Reliability systems for implantable cardiac defibrillator batteries. *Journal of Power Sources*, **1995**, 54, 115-119	8.9	13
119	Correlating Preparative Approaches with Electrochemical Performance of Fe3O4-MWNT Composites Used as Anodes in Li-Ion Batteries. *ECS Journal of Solid State Science and Technology*, **2017**, 6, M3122-M3131	2	12
118	Structural and silver/vanadium ratio effects on silver vanadium phosphorous oxide solution formation kinetics: impact on battery electrochemistry. *Physical Chemistry Chemical Physics*, **2015**, 17, 2034-42	3.6	12
117	Ionic liquid hybrids: Progress toward non-corrosive electrolytes with high-voltage oxidation stability for magnesium-ion based batteries. *Electrochimica Acta*, **2016**, 219, 267-276	6.7	12
116	High capacity Li-ion battery anodes: Impact of crystallite size, surface chemistry and PEG-coating. *Electrochimica Acta*, **2018**, 260, 235-245	6.7	12
115	Probing enhanced lithium-ion transport kinetics in 2D holey nanoarchitectured electrodes. *Nano Futures*, **2018**, 2, 035008	3.6	12
114	Toward Environmentally Friendly Lithium Sulfur Batteries: Probing the Role of Electrode Design in MoS2-Containing Li□ Batteries with a Green Electrolyte. *ACS Sustainable Chemistry and Engineering* , **2019**, 7, 5209-5222	8.3	11
113	Understanding the Effect of Preparative Approaches in the Formation of □lower-like□ Li4Ti5O12□Multiwalled Carbon Nanotube Composite Motifs with Performance as High-Rate Anode Materials for Li-Ion Battery Applications. *Journal of the Electrochemical Society*, **2017**, 164, A524-A534	3.9	10
112	Microwave-Assisted Synthesis of Silver Vanadium Phosphorus Oxide, Ag2VO2PO4: Crystallite Size Control and Impact on Electrochemistry. *Chemistry of Materials*, **2016**, 28, 2191-2199	9.6	10
111	X-ray absorption spectroscopy of lithium insertion and de-insertion in copper birnessite nanoparticle electrodes. *Physical Chemistry Chemical Physics*, **2016**, 18, 2959-67	3.6	10
110	Energy-Dispersive X-ray Diffraction: Operando Visualization of Electrochemical Activity of Thick Electrodes. *Journal of Physical Chemistry C*, **2019**, 123, 18834-18843	3.8	10

109	Ag3.2VP1.5O7.8: A High Voltage Silver Vanadium Phosphate Cathode Material. *Journal of the Electrochemical Society*, **2013**, 160, A2207-A2211	3.9	10
108	Galvanostatic interruption of lithium insertion into magnetite: Evidence of surface layer formation. *Journal of Power Sources*, **2016**, 321, 106-111	8.9	10
107	Unveiling the Structural Evolution of Ag1.2Mn8O16 under Coulombically Controlled (De)Lithiation. *Chemistry of Materials*, **2018**, 30, 366-375	9.6	10
106	Atomic Scale Account of the Surface Effect on Ionic Transport in Silver Hollandite. *Chemistry of Materials*, **2018**, 30, 6124-6133	9.6	10
105	Simulations of Lithium-Magnetite Electrodes Incorporating Phase Change. *Electrochimica Acta*, **2017**, 238, 384-396	6.7	9
104	Design Principles to Govern Electrode Fabrication for the Lithium Trivanadate Cathode. *Journal of the Electrochemical Society*, **2020**, 167, 100503	3.9	9
103	SWNT Networks with Polythiophene Carboxylate Links for High-Performance Silicon Monoxide Electrodes. *ACS Applied Energy Materials*, **2018**, 1, 2417-2423	6.1	9
102	Understanding How Structure and Crystallinity Affect Performance in Solid-State Batteries Using a Glass Ceramic LiV3O8 Cathode. *Chemistry of Materials*, **2019**, 31, 6135-6144	9.6	9
101	Rationalization of Diversity in Spinel MgFe2O4 Surfaces. *Advanced Materials Interfaces*, **2019**, 6, 1901218	4.6	9
100	Tailoring the Ag+Content within the Tunnels and on the Exposed Surfaces of □MnO2Nanowires: Impact on Impedance and Electrochemistry. *Journal of the Electrochemical Society*, **2017**, 164, A6163-A6170	3.9	8
99	Deliberate Modification of FeO Anode Surface Chemistry: Impact on Electrochemistry. *ACS Applied Materials & Interfaces*, **2019**, 11, 19920-19932	9.5	8
98	Impact of Synthesis Method on Phase Transformations of Layered Lithium Vanadium Oxide upon Electrochemical (De)lithiation. *Journal of the Electrochemical Society*, **2019**, 166, A771-A778	3.9	8
97	Temporally and Spatially Resolved Visualization of Electrochemical Conversion: Monitoring Phase Distribution During Lithiation of Magnetite (Fe3O4) Electrodes. *ACS Applied Energy Materials*, **2019**, 2, 2561-2569	6.1	8
96	Optimal electrode-scale design of Li-ion electrodes: A general correlation. *Energy Storage Materials*, **2021**, 39, 176-185	19.4	8
95	Gradient Design for High-Energy and High-Power Batteries. *Advanced Materials*,2202780	24	8
94	Energy Dispersive X-ray Diffraction (EDXRD) of Li1.1V3O8 Electrochemical Cell. *MRS Advances*, **2017**, 2, 401-406	0.7	7
93	Zerovalent Copper Intercalated Birnessite as a Cathode for Lithium Ion Batteries: Extending Cycle Life. *Journal of the Electrochemical Society*, **2017**, 164, A2151-A2158	3.9	7
92	Transition Metal Substitution of Hollandite □MnO2: Enhanced Potential and Structural Stability on Lithiation from First-Principles Calculation. *Journal of Physical Chemistry C*, **2019**, 123, 25042-25051	3.8	7

91	Tuning Conjugated Polymers for Binder Applications in High-Capacity Magnetite Anodes. *ACS Applied Energy Materials*, **2019**, 2, 7584-7593	6.1	7
90	Solution-Based, Anion-Doping of Li Ti O Nanoflowers for Lithium-Ion Battery Applications. *Chemistry - A European Journal*, **2020**, 26, 9389-9402	4.8	7
89	Li/Ag2VO2PO4 batteries: the roles of composite electrode constituents on electrochemistry. *RSC Advances*, **2016**, 6, 106887-106898	3.7	7
88	Carboxylated Poly(thiophene) Binders for High-Performance Magnetite Anodes: Impact of Cation Structure. *ACS Applied Materials & Interfaces*, **2019**, 11, 44046-44057	9.5	7
87	Three-dimensional carbon-conductive polymer□silver composite air electrodes for non-aqueous metal air batteries. *Journal of Composite Materials*, **2013**, 47, 33-40	2.7	7
86	Hybrid Ag2VO2PO4/CFxas a High Capacity and Energy Cathode for Primary Batteries. *Journal of the Electrochemical Society*, **2017**, 164, A2457-A2467	3.9	7
85	Secondary Battery Science: At the Confluence of Electrochemistry and Materials Engineering. *Electrochemistry*, **2012**, 80, 700-705	1.2	7
84	Building Efficient Ion Pathway in Highly Densified Thick Electrodes with High Gravimetric and Volumetric Energy Densities. *Nano Letters*, **2021**, 21, 9339-9346	11.5	7
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