M Stanley Whittingham

List of Publications by Citations

207 papers	20,042 citations	61 h-index	140 g-index
214 ext. papers	22,676 ext. citations	13 avg, IF	7.61 L-index

#	Paper	IF	Citations
207	Lithium batteries and cathode materials. *Chemical Reviews*, **2004**, 104, 4271-301	68.1	4725
206	Pathways for practical high-energy long-cycling lithium metal batteries. *Nature Energy*, **2019**, 4, 180-186	62.3	1202
205	Lithium□xygen batteries: bridging mechanistic understanding and battery performance. *Energy and Environmental Science*, **2013**, 6, 750	35.4	740
204	Ultimate limits to intercalation reactions for lithium batteries. *Chemical Reviews*, **2014**, 114, 11414-43	68.1	732
203	Layered vanadium and molybdenum oxides: batteries and electrochromics. *Journal of Materials Chemistry*, **2009**, 19, 2526		688
202	The Role of Ternary Phases in Cathode Reactions. *Journal of the Electrochemical Society*, **1976**, 123, 315-320	3.9	550
201	Materials Challenges Facing Electrical Energy Storage. *MRS Bulletin*, **2008**, 33, 411-419	3.2	528
200	History, Evolution, and Future Status of Energy Storage. *Proceedings of the IEEE*, **2012**, 100, 1518-1534	14.3	505
199	Hydrothermal synthesis of lithium iron phosphate cathodes. *Electrochemistry Communications*, **2001**, 3, 505-508	5.1	489
198	Conversion reaction mechanisms in lithium ion batteries: study of the binary metal fluoride electrodes. *Journal of the American Chemical Society*, **2011**, 133, 18828-36	16.4	414
197	Reactivity, stability and electrochemical behavior of lithium iron phosphates. *Electrochemistry Communications*, **2002**, 4, 239-244	5.1	318
196	Narrowing the Gap between Theoretical and Practical Capacities in Li-Ion Layered Oxide Cathode Materials. *Advanced Energy Materials*, **2017**, 7, 1602888	21.8	315
195	Hydrothermal Synthesis of Vanadium Oxides. *Chemistry of Materials*, **1998**, 10, 2629-2640	9.6	306
194	High-energy lithium metal pouch cells with limited anode swelling and long stable cycles. *Nature Energy*, **2019**, 4, 551-559	62.3	283
193	Measurement of Sodium Ion Transport in Beta Alumina Using Reversible Solid Electrodes. *Journal of Chemical Physics*, **1971**, 54, 414-416	3.9	277
192	Structural chemistry of vanadium oxides with open frameworks. *Acta Crystallographica Section B: Structural Science*, **1999**, 55, 627-663		264
191	The hydrothermal synthesis and characterization of olivines and related compounds for electrochemical applications. *Solid State Ionics*, **2008**, 178, 1676-1693	3.3	256

190	Some transition metal (oxy)phosphates and vanadium oxides for lithium batteries. *Journal of Materials Chemistry*, **2005**, 15, 3362		256
189	Critical Parameters for Evaluating Coin Cells and Pouch Cells of Rechargeable Li-Metal Batteries. *Joule*, **2019**, 3, 1094-1105	27.8	219
188	The synthesis, characterization and electrochemical behavior of the layered LiNi0.4Mn0.4Co0.2O2 compound. *Journal of Materials Chemistry*, **2004**, 14, 214		211
187	Understanding and applying coulombic efficiency in lithium metal batteries. *Nature Energy*, **2020**, 5, 561-568	52.9	201
186	Manganese Vanadium Oxide Nanotubes:Synthesis, Characterization, and Electrochemistry. *Chemistry of Materials*, **2001**, 13, 4382-4386	9.6	154
185	Hydrothermal Synthesis and Characterization of KxMnO2yH2O. *Chemistry of Materials*, **1996**, 8, 1275-1280	9.6	153
184	Introduction: batteries and fuel cells. *Chemical Reviews*, **2004**, 104, 4243-4	68.1	151
183	Effect of Al2O3 Coating on Stabilizing LiNi0.4Mn0.4Co0.2O2 Cathodes. *Chemistry of Materials*, **2015**, 27, 6146-6154	9.6	149
182	New iron(III) phosphate phases: crystal structure and electrochemical and magnetic properties. *Inorganic Chemistry*, **2002**, 41, 5778-86	5.1	142
181	n-ButyllithiumAn Effective, General Cathode Screening Agent. *Journal of the Electrochemical Society*, **1977**, 124, 1387-1388	3.9	133
180	Hydrothermal synthesis of cathode materials. *Journal of Power Sources*, **2007**, 174, 442-448	8.9	129
179	Novel Tungsten, Molybdenum, and Vanadium Oxides Containing Surfactant Ions. *Chemistry of Materials*, **1996**, 8, 2096-2101	9.6	117
178	Characterization of Amorphous and Crystalline TinCobalt Anodes. *Electrochemical and Solid-State Letters*, **2007**, 10, A274		114
177	Iron and Manganese Pyrophosphates as Cathodes for Lithium-Ion Batteries. *Chemistry of Materials*, **2011**, 23, 293-300	9.6	110
176	Temperature-dependent properties of FePO4 cathode materials. *Materials Research Bulletin*, **2002**, 37, 1249-1257	5.1	109
175	Electrospun nano-vanadium pentoxide cathode. *Electrochemistry Communications*, **2009**, 11, 522-525	5.1	107
174	Layered LixNiyMnyCo1-2yO2 Cathodes for Lithium Ion Batteries: Understanding Local Structure via Magnetic Properties. *Chemistry of Materials*, **2007**, 19, 4682-4693	9.6	106
173	Spin-transfer pathways in paramagnetic lithium transition-metal phosphates from combined broadband isotropic solid-state MAS NMR spectroscopy and DFT calculations. *Journal of the American Chemical Society*, **2012**, 134, 17178-85	16.4	100

172	Structural and electrochemical behavior of LiMn0.4Ni0.4Co0.2O2. *Journal of Power Sources*, **2007**, 165, 517-534	8.9	100
171	Electrospun Manganese Oxide Nanofibers as Anodes for Lithium-Ion Batteries. *Electrochemical and Solid-State Letters*, **2007**, 10, A48		100
170	Can Vanadium Be Substituted into LiFePO4?. *Chemistry of Materials*, **2011**, 23, 4733-4740	9.6	99
169	Hydrothermal synthesis of transition metal oxides under mild conditions. *Current Opinion in Solid State and Materials Science*, **1996**, 1, 227-232	12	99
168	The hydrothermal synthesis of new oxide materials. *Solid State Ionics*, **1995**, 75, 257-268	3.3	98
167	Layered Mixed Transition Metal Oxide Cathodes with Reduced Cobalt Content for Lithium Ion Batteries. *Chemistry of Materials*, **2008**, 20, 7454-7464	9.6	96
166	Inorganic nanomaterials for batteries. *Dalton Transactions*, **2008**, 5424-31	4.3	90
165	Nanotechnology for environmentally sustainable electromobility. *Nature Nanotechnology*, **2016**, 11, 1031-1051	38.1	90
164	Mechanism of Reduction of the Fluorographite Cathode. *Journal of the Electrochemical Society*, **1975**, 122, 526-527	3.9	88
163	What Limits the Capacity of Layered Oxide Cathodes in Lithium Batteries?. *ACS Energy Letters*, **2019**, 4, 1902-1906	20.1	85
162	Performance of LiFePO4 as lithium battery cathode and comparison with manganese and vanadium oxides. *Journal of Power Sources*, **2003**, 119-121, 239-246	8.9	84
161	Balancing interfacial reactions to achieve long cycle life in high-energy lithium metal batteries. *Nature Energy*, **2021**, 6, 723-732	62.3	81
160	VOPO[sub 4]: Electrochemical Synthesis and Enhanced Cathode Behavior. *Journal of the Electrochemical Society*, **2005**, 152, A721	3.9	77
159	What can we learn about battery materials from their magnetic properties?. *Journal of Materials Chemistry*, **2011**, 21, 9865		76
158	Rock-Salt Growth-Induced (003) Cracking in a Layered Positive Electrode for Li-Ion Batteries. *ACS Energy Letters*, **2017**, 2, 2607-2615	20.1	70
157	Can Multielectron Intercalation Reactions Be the Basis of Next Generation Batteries?. *Accounts of Chemical Research*, **2018**, 51, 258-264	24.3	69
156	Comparative Study of the Capacity and Rate Capability of LiNiyMnyCo1−2yO2 (y = 0.5, 0.45, 0.4, 0.33). *Journal of the Electrochemical Society*, **2011**, 158, A516	3.9	69
155	Cathodic Behavior of Alkali Manganese Oxides from Permanganate. *Journal of the Electrochemical Society*, **1997**, 144, L64-L67	3.9	69

154	Energy and environmental aspects in recycling lithium-ion batteries: Concept of Battery Identity Global Passport. *Materials Today*, **2020**, 41, 304-315	21.8	69
153	Quantifying the Capacity Contributions during Activation of Li2MnO3. *ACS Energy Letters*, **2020**, 5, 634-641	20.1	68
152	Extremely Durable High-Rate Capability of a LiNi0.4Mn0.4Co0.2O2 Cathode Enabled with Single-Walled Carbon Nanotubes. *Advanced Energy Materials*, **2011**, 1, 58-62	21.8	67
151	Hydrothermal synthesis of sodium tungstates. *Chemistry of Materials*, **1990**, 2, 219-221	9.6	67
150	Thermal Stability and Reactivity of Cathode Materials for Li-Ion Batteries. *ACS Applied Materials & Interfaces*, **2016**, 8, 7013-21	9.5	66
149	Science and Applications of Mixed Conductors for Lithium Batteries. *MRS Bulletin*, **2000**, 25, 39-46	3.2	62
148	Li-Nb-O Coating/Substitution Enhances the Electrochemical Performance of the LiNiMnCoO (NMC 811) Cathode. *ACS Applied Materials & Interfaces*, **2019**, 11, 34889-34894	9.5	61
147	An organic coprecipitation route to synthesize high voltage LiNi0.5Mn1.5O4. *ACS Applied Materials & Interfaces*, **2013**, 5, 10227-32	9.5	61
146	Synthesis of novel compounds with the pyrochlore and hexagonal tungsten bronze structures. *Journal of Solid State Chemistry*, **1992**, 96, 31-47	3.3	58
145	Evidence for Decavanadate Clusters in the Lamellar Surfactant Ion Phase. *Chemistry of Materials*, **1997**, 9, 647-649	9.6	57
144	Thermodynamics, Kinetics and Structural Evolution of LiVOPO4 over Multiple Lithium Intercalation. *Chemistry of Materials*, **2016**, 28, 1794-1805	9.6	56
143	Why Substitution Enhances the Reactivity of LiFePO4. *Chemistry of Materials*, **2013**, 25, 85-89	9.6	56
142	Stability and Rate Capability of Al Substituted Lithium-Rich High-Manganese Content Oxide Materials for Li-Ion Batteries. *Journal of the Electrochemical Society*, **2011**, 159, A116-A120	3.9	56
141	Study of the transition metal ordering in layered Na(x)Ni(x/2)Mn(1-x/2)O2 (2/3 x 1) and consequences of Na/Li exchange. *Inorganic Chemistry*, **2013**, 52, 8540-50	5.1	54
140	Oxygen and transition metal involvement in the charge compensation mechanism of LiNi1/3Mn1/3Co1/3O2 cathodes. *Journal of Materials Chemistry*, **2012**, 22, 19993		51
139	Challenges and Development of Tin-Based Anode with High Volumetric Capacity for Li-Ion Batteries. *Electrochemical Energy Reviews*, **2020**, 3, 643-655	29.3	51
138	Influence of Manganese Content on the Performance of LiNi0.9MnyCo0.1O2 (0.45 y 0.60) as a Cathode Material for Li-Ion Batteries *Chemistry of Materials*, **2010**, 22, 1180-1185	9.6	50
137	Manganese dioxides as cathodes for lithium rechargeable cells: the stability challenge. *Solid State Ionics*, **2000**, 131, 109-115	3.3	50

136	Structure of Hydrated Tungsten Peroxides [WO2(O2)H2O]□hH2O. *Chemistry of Materials*, **1998**, 10, 1882-1888	9.6	50
135	Electrointercalation in transition-metal disulphides. *Journal of the Chemical Society Chemical Communications*, **1974**, 328		50
134	Tuning the Activity of Oxygen in LiNiCoAlO Battery Electrodes. *ACS Applied Materials & Interfaces*, **2016**, 8, 27762-27771	9.5	49
133	The Structural and Electrochemical Impact of Li and Fe Site Substitution in LiFePO4. *Chemistry of Materials*, **2013**, 25, 2691-2699	9.6	48
132	Synthesis, Crystal Structure, and Electrochemical and Magnetic Study of New Iron (III) Hydroxyl-Phosphates, Isostructural with Lipscombite. *Chemistry of Materials*, **2005**, 17, 1139-1147	9.6	48
131	Structure Stabilization by Mixed Anions in Oxyfluoride Cathodes for High-Energy Lithium Batteries. *ACS Nano*, **2015**, 9, 10076-84	16.7	47
130	Atomic Insight into the Layered/Spinel Phase Transformation in Charged LiNi0.80Co0.15Al0.05O2 Cathode Particles. *Journal of Physical Chemistry C*, **2017**, 121, 1421-1430	3.8	45
129	A New Vanadium Dioxide Cathode. *Journal of the Electrochemical Society*, **1996**, 143, L193-L195	3.9	45
128	Intercalation and lattice expansion in titanium disulfide. *Journal of Chemical Physics*, **1975**, 62, 1588-1588	3.9	45
127	Insertion electrodes as SMART materials: the first 25 years and future promises. *Solid State Ionics*, **2000**, 134, 169-178	3.3	44
126	Layered Oxide Cathodes for Li-Ion Batteries: Oxygen Loss and Vacancy Evolution. *Chemistry of Materials*, **2019**, 31, 7790-7798	9.6	43
125	Vaper Phase Polymerized PEDOT/Cellulose Paper Composite for Flexible Solid-State Supercapacitor. *ACS Applied Energy Materials*, **2020**, 3, 1559-1568	6.1	41
124	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
123	Copper pyrazole directed crystallization of decavanadates: synthesis and characterization of {Cu(pz)}4[{Cu(pz)3}2V10O28] and (Hpz)2[{Cu(pz)4}2V10O28]□2H2O. *CrystEngComm*, **2009**, 11, 625-631	3.3	38
122	Electrochemical Behavior of the Amorphous Tin□Cobalt Anode. *Electrochemical and Solid-State Letters*, **2010**, 13, A184		37
121	Enabling multi-electron reaction of □VOPO to reach theoretical capacity for lithium-ion batteries. *Chemical Communications*, **2018**, 54, 7802-7805	5.8	36
120	Synthesis of vanadium oxide nanofibers and tubes using polylactide fibers as template. *Materials Research Bulletin*, **2005**, 40, 383-393	5.1	36
119	Free Energy of Formation of Sodium Tungsten Bronzes, Na x WO 3. *Journal of the Electrochemical Society*, **1975**, 122, 713-714	3.9	36

118	Formation of an Anti-Core–Shell Structure in Layered Oxide Cathodes for Li-Ion Batteries. *ACS Energy Letters*, **2017**, 2, 2598-2606	20.1	35
117	Towards understanding the rate capability of layered transition metal oxides LiNiyMnyCo1−2yO2. *Journal of Power Sources*, **2014**, 268, 106-112	8.9	35
116	Comparison of the polymorphs of VOPO4 as multi-electron cathodes for rechargeable alkali-ion batteries. *Journal of Materials Chemistry A*, **2017**, 5, 17421-17431	13	35
115	Electrochemical Behavior of Nanostructured e-VOPO4over Two Redox Plateaus. *Journal of the Electrochemical Society*, **2013**, 160, A1777-A1780	3.9	35
114	What is the Role of Nb in Nickel-Rich Layered Oxide Cathodes for Lithium-Ion Batteries?. *ACS Energy Letters*,1377-1382	20.1	34
113	A high-performance oxygen evolution catalyst in neutral-pH for sunlight-driven CO reduction. *Nature Communications*, **2019**, 10, 4081	17.4	33
112	Hydrothermal synthesis of electrode materials pyrochlore tungsten trioxide film. *Journal of Power Sources*, **1995**, 54, 461-464	8.9	31
111	Hydrothermal Synthesis of a New Molybdate with a Layered Structure, (NMe4)Mo4-.delta.O12. *Chemistry of Materials*, **1994**, 6, 357-359	9.6	30
110	Crystal Structure, Physical Properties, and Electrochemistry of Copper Substituted LiFePO4 Single Crystals. *Chemistry of Materials*, **2012**, 24, 166-173	9.6	29
109	TUNGSTEN OXIDES AND BRONZES: SYNTHESIS, DIFFUSION AND REACTIVITY. *International Journal of Modern Physics B*, **1993**, 07, 4145-4164	1.1	29
108	KVOPO4: A New High Capacity Multielectron Na-Ion Battery Cathode. *Advanced Energy Materials*, **2018**, 8, 1800221	21.8	28
107	Mg Substitution Clarifies the Reaction Mechanism of Olivine LiFePO4. *Advanced Energy Materials*, **2015**, 5, 1401204	21.8	26
106	Layered Molybdenum (Oxy)Pyrophosphate as Cathode for Lithium-Ion Batteries. *Chemistry of Materials*, **2013**, 25, 3513-3521	9.6	26
105	Layered compounds and intercalation chemistry: An example of chemistry and diffusion in solids. *Journal of Chemical Education*, **1980**, 57, 569	2.4	26
104	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
103	Good Practices for Rechargeable Lithium Metal Batteries. *Journal of the Electrochemical Society*, **2019**, 166, A4141-A4149	3.9	26
102	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
101	Synthesis and electrochemistry of a vanadium-pillared manganese oxide. *Electrochemistry Communications*, **2000**, 2, 445-447	5.1	25

100	Synthesis and characterization of a pipe-structure manganese vanadium oxide by hydrothermal reaction. *Journal of Materials Chemistry*, **1999**, 9, 3137-3140		24
99	Hierarchical nickel valence gradient stabilizes high-nickel content layered cathode materials. *Nature Communications*, **2021**, 12, 2350	17.4	24
98	The Anode Challenge for Lithium-Ion Batteries: A Mechanochemically Synthesized Sn-Fe-C Composite Anode Surpasses Graphitic Carbon. *Advanced Science*, **2016**, 3, 1500229	13.6	23
97	Lithium Closoboranes as Electrolytes in Solid Cathode Lithium Cells. *Journal of the Electrochemical Society*, **1980**, 127, 1653-1654	3.9	23
96	Electrochemical Performance of Nanosized Disordered LiVOPO. *ACS Omega*, **2018**, 3, 7310-7323	3.9	22
95	A □VOPO4/□VOPO4 composite Li-ion battery cathode. *Electrochemistry Communications*, **2014**, 46, 67-70	5.1	22
94	□and □LiVOPO: Phase Transformation and Electrochemistry. *ACS Applied Materials & Interfaces*, **2017**, 9, 28537-28541	9.5	21
93	The hydrothermal synthesis of the new manganese and vanadium oxides, NiMnO3H, MAV3O7 and MA0.75V4O10□0.67H2O (MA=CH3NH3). *Journal of Materials Chemistry*, **1999**, 9, 93-100		21
92	New Iron Sulfur Cathodes for Nonaqueous Lithium Batteries. *Journal of the Electrochemical Society*, **1979**, 126, 887-891	3.9	21
91	Structure Evolution and Thermal Stability of High-Energy- Density Li-Ion Battery Cathode Li2VO2F. *Journal of the Electrochemical Society*, **2017**, 164, A1552-A1558	3.9	20
90	Understanding the stability of MnPO4. *Journal of Materials Chemistry A*, **2014**, 2, 12827	13	19
89	Tin-Iron Based Nano-Materials as Anodes for Li-Ion Batteries. *Journal of the Electrochemical Society*, **2011**, 158, A1498	3.9	19
88	Synthesis and characterization of layered and scrolled amine-templated vanadium oxides. *Journal of Materials Science*, **2008**, 43, 4742-4748	4.3	19
87	Nanocrystal Conversion-Assisted Design of Sn-Fe Alloy with a Core-Shell Structure as High-Performance Anodes for Lithium-Ion Batteries. *ACS Omega*, **2019**, 4, 4888-4895	3.9	17
86	Li3Mo4P5O24: A Two-Electron Cathode for Lithium-Ion Batteries with Three-Dimensional Diffusion Pathways. *Chemistry of Materials*, **2016**, 28, 2229-2235	9.6	17
85	A high-performance solid-state synthesized LiVOPO4 for lithium-ion batteries. *Electrochemistry Communications*, **2019**, 105, 106491	5.1	17
84	Structure, defects and thermal stability of delithiated olivine phosphates. *Journal of Materials Chemistry*, **2012**, 22, 20482		17
83	Uniform second Li ion intercalation in solid state ?-LiVOPO4. *Applied Physics Letters*, **2016**, 109, 053904	3.4	17

82	Role of disorder in limiting the true multi-electron redox in LiVOPO4. *Journal of Materials Chemistry A*, **2018**, 6, 20669-20677	13	17
81	Rational synthesis and electrochemical performance of LiVOPO4 polymorphs. *Journal of Materials Chemistry A*, **2019**, 7, 8423-8432	13	16
80	Synthesis, crystal structures and magnetic properties of organically templated new layered vanadates: [C4H8NH2]V3O7, [(CH3)2NH2]V3O7, [C5H10NH2]V3O7 and [C2H5NH3]V3O7. *Journal of Materials Chemistry*, **2004**, 14, 2922		16
79	Morphology, composition and electrochemistry of a nano-porous silicon versus bulk silicon anode for lithium-ion batteries. *Journal of Materials Science*, **2017**, 52, 3670-3677	4.3	15
78	Intrinsic Challenges to the Electrochemical Reversibility of the High Energy Density Copper(II) Fluoride Cathode Material. *ACS Applied Energy Materials*, **2019**, 2, 5243-5253	6.1	15
77	Hydrothermal synthesis of copper coordination polymers based on molybdates: Chemistry issues. *Journal of Molecular Structure*, **2006**, 796, 179-186	3.4	15
76	Lithium Batteries and Cathode Materials. *ChemInform*, **2004**, 35, no		14
75	What Happens to LiMnPO4 upon Chemical Delithiation?. *Inorganic Chemistry*, **2016**, 55, 4335-43	5.1	14
74	Fundamental Linkage Between Structure, Electrochemical Properties, and Chemical Compositions of LiNiMnCoO Cathode Materials. *ACS Applied Materials & Interfaces*, **2021**, 13, 2622-2629	9.5	14
73	The first example of a novel one-dimensional cyclic tetrameric metavanadate: [PPh4]2V4O11. *CrystEngComm*, **2002**, 4, 601	3.3	13
72	Extending the limits of powder diffraction analysis: Diffraction parameter space, occupancy defects, and atomic form factors. *Review of Scientific Instruments*, **2018**, 89, 093002	1.7	13
71	Control of the structure and properties of vanadium and manganese oxides through tailored soft synthesis. *Solid State Sciences*, **2001**, 3, 1231-1236		12
70	Vanadyl Phosphates AxVOPO4 (A = Li, Na, K) as Multielectron Cathodes for Alkali-Ion Batteries. *Advanced Energy Materials*, **2020**, 10, 2002638	21.8	11
69	Hydrothermal Synthesis and Characterization of A Series of Novel Zinc Vanadium Oxides as Cathode Materials. *Materials Research Society Symposia Proceedings*, **1997**, 496, 367		10
68	Comparison of one-, two-, and three-dimensional iron phosphates containing ethylenediamine. *Journal of Solid State Chemistry*, **2003**, 175, 63-71	3.3	10
67	A Mixed Rate Cathode for Lithium Batteries. *Journal of the Electrochemical Society*, **1981**, 128, 485-486	3.9	10
66	Oxygen Loss in Layered Oxide Cathodes for Li-Ion Batteries: Mechanisms, Effects, and Mitigation.. *Chemical Reviews*, **2022**,	68.1	10
65	Pushing the limit of 3d transition metal-based layered oxides that use both cation and anion redox for energy storage. *Nature Reviews Materials*,	73.3	10

64	Reaction Mechanism of the SnFe Anode in Lithium-Ion Batteries. *ACS Omega*, **2019**, 4, 22345-22355	3.9	9
63	Evolution of lithium ordering with (de)-lithiation in ε-LiVOPO4: insights through solid-state NMR and first principles DFT calculations. *Journal of Materials Chemistry A*, **2020**, 8, 5546-5557	13	8
62	Two novel open-framework zinc phosphates: (CH3NH3)Zn4(PO4)3 and (CH3NH3)2Zn5(PO4)4. *Journal of Materials Chemistry*, **2003**, 13, 1936		8
61	Solvothermal synthesis and characterization of a layered pyridinium vanadate, (C5H6N)V3O7. *Journal of Materials Chemistry*, **2003**, 13, 1424		8
60	Mixed Conductors: Synthesis, Properties, Applications. *MRS Bulletin*, **1989**, 14, 31-38	3.2	8
59	Valence-to-core X-ray emission spectroscopy of vanadium oxide and lithiated vanadyl phosphate materials. *Journal of Materials Chemistry A*, **2020**, 8, 16332-16344	13	8
58	Whither Mn Oxidation in Mn-Rich Alkali-Excess Cathodes?. *ACS Energy Letters*, **2021**, 6, 1055-1064	20.1	7
57	Structural Changes in a High-Energy Density VO2F Cathode upon Heating and Li Cycling. *ACS Applied Energy Materials*, **2018**, 1, 4514-4521	6.1	7
56	Nonstoichiometry and Defects in Hydrothermally Synthesized ε-LiVOPO4. *ACS Applied Energy Materials*, **2019**, 2, 4792-4800	6.1	6
55	Single-Phase Lithiation and Delithiation of Simferite Compounds Li(Mg,Mn,Fe)PO4. *Chemistry of Materials*, **2014**, 26, 6206-6212	9.6	6
54	Low-temperature Synthesis Routes of Alkali-metal Molybdenum Bronzes. *Chemistry Letters*, **1999**, 28, 811-812	1.7	6
53	Niobium Triselenide in a Lithium Dioxolane Cell. *Journal of the Electrochemical Society*, **1981**, 128, 706-707	3.9	6
52	Can Greener Cyrene Replace NMP for Electrode Preparation of NMC 811 Cathodes?. *Journal of the Electrochemical Society*, **2021**, 168, 040536	3.9	6
51	Hydrothermal synthesis, structure refinement, and electrochemical characterization of Li2CoGeO4 as an oxygen evolution catalyst. *Journal of Materials Chemistry A*, **2014**, 2, 18428-18434	13	5
50	Electrochemically synthesized nanoporous gold as a cathode material for Li-O2 batteries. *Journal of Solid State Electrochemistry*, **2017**, 21, 463-468	2.6	5
49	Ion Transport in Single Crystals of the Clay-Like Aluminosilicate, Vermiculite. *Materials Research Society Symposia Proceedings*, **1990**, 210, 351		5
48	Systematic Evaluation of Carbon Hosts for High-Energy Rechargeable Lithium-Metal Batteries. *ACS Energy Letters*,1550-1559	20.1	5
47	Solid State Ionics - the key to the discovery, introduction and domination of lithium batteries for portable energy storage. *Solid State Ionics*, **2018**, 317, 60-68	3.3	4

46	New Manganese Oxides by Hydrothermal Reaction of Permanganates. *Materials Research Society Symposia Proceedings*, **1996**, 453, 653		4
45	Al Substitution for Mn during Co-Precipitation Boosts the Electrochemical Performance of LiNi0.8Mn0.1Co0.1O2. *Journal of the Electrochemical Society*, **2021**, 168, 050532	3.9	4
44	Magnetic Studies of Layered Cathode Materials for Lithium Ion Batteries. *Materials Research Society Symposia Proceedings*, **2006**, 972, 1		3
43	Anode Hosts for Lithium Batteries: Revisiting Tin and Aluminum. *Materials Research Society Symposia Proceedings*, **2004**, 835, K6.16.1		3
42	Synthesis, Diffusion and Ion-Exchange in Open Structure Sodium Tungstates and YBaCu Tungstates. *Materials Research Society Symposia Proceedings*, **1990**, 210, 473		3
41	Structure, Composition, and Electrochemistry of Chromium-Substituted □LiVOPO4. *ACS Applied Energy Materials*, **2021**, 4, 1421-1430	6.1	3
40	Conditioning the Surface and Bulk of High-Nickel Cathodes with a Nb Coating: An X-ray Study. *Journal of Physical Chemistry Letters*, **2021**, 12, 7908-7913	6.4	3
39	Microwave-assisted solvothermal synthesis of LiVyM1−yOPO4 (M = Mn, Cr, Ti, Zr, Nb, Mo, W) cathode materials for lithium-ion batteries. *Journal of Materials Chemistry A*, **2021**, 9, 6933-6944	13	3
38	Electrochemical energy storage: batteries and capacitors608-623		2
37	Structure and Stability of Olivine Phase FePO4. *Materials Research Society Symposia Proceedings*, **2011**, 1333, 30301		2
36	Structural and Electrochemical Properties of LiMn0.4Ni0.4Co0.2O2. *Materials Research Society Symposia Proceedings*, **2004**, 835, K11.3.1		2
35	Synthesis of Novel Vanadium Oxide Nanotubes and Nanofibers. *Materials Research Society Symposia Proceedings*, **2002**, 740, 1		2
34	Hydrothermal Synthesis of Vanadium Oxides. *Materials Research Society Symposia Proceedings*, **1996**, 453, 135		2
33	Low Temperature Synthesis of Lamellar Transition Metal Oxides Containing Surfactant Ions. *Materials Research Society Symposia Proceedings*, **1996**, 457, 533		2
32	Solid-state ionics: The key to the discovery and domination of lithium batteries: some learnings from ß-alumina and titanium disulfide. *MRS Bulletin*, **2021**, 46, 168-173	3.2	2
31	Using In-Situ Methods to Characterize Phase Changes in Charged Lithium Nickel Cobalt Aluminum Oxide Cathode Materials. *Microscopy and Microanalysis*, **2019**, 25, 2030-2031	0.5	1
30	The Intermediate State of the Layered -Spinel Phase Transformation in LiNi0.80Co0.15Al0.05O2 Cathode. *Microscopy and Microanalysis*, **2017**, 23, 2014-2015	0.5	1
29	Influence of Lithium Content on Performance of Layered Li1+z [Ni0.45Mn0.45Co0.1] 1−zO2 in Lithium Ion Batteries. *Materials Research Society Symposia Proceedings*, **2006**, 972, 1		1

28	The Hydrothermal Synthesis of Lithium Iron Phosphate. *Materials Research Society Symposia Proceedings*, **2006**, 972, 1		1
27	Nanosized Amorphous Materials as Anodes for Lithium Batteries. *Materials Research Society Symposia Proceedings*, **2006**, 972, 1		1
26	Phosphoric acid imidazolium dihydrogenphosphate. *Acta Crystallographica Section E: Structure Reports Online*, **2006**, 62, o258-o260		1
25	New Iron (III) Hydroxyl-Phosphate with Rod-packing Structure as Intercalation Materials. *Materials Research Society Symposia Proceedings*, **2002**, 756, 1		1
24	Synthesis and Characterization of New Iron and Zinc Phosphate Materials with Open Framework. *Materials Research Society Symposia Proceedings*, **2002**, 755, 1		1
23	The Relationship between Structure and Cell Properties of the Cathode for Lithium Batteries49-66		1
22	The Hydrothermal Synthesis of KzMnO2 in the Presence of Citric Acid. *Materials Research Society Symposia Proceedings*, **1998**, 548, 125		1
21	The stabilization of layered Manganese Oxides for use in Rechargeable Lithium Batteries. *Materials Research Society Symposia Proceedings*, **1999**, 575, 77		1
20	Fluorophlogopite and Taeniolite: Synthesis and Nanocomposite Formation. *Materials Research Society Symposia Proceedings*, **1996**, 457, 501		1
19	An Electrochemical Study on NH4VOPO4: Can Ion-Exchange Improve Side Reactions?. *Journal of the Electrochemical Society*, **2021**, 168, 050513	3.9	1
18	Enhanced High-Rate Performance of Nanosized Single Crystal □VOPO4 with Niobium Substitution for Lithium-Ion Batteries. *Journal of the Electrochemical Society*, **2021**, 168, 060519	3.9	1
17	Operando XAS to Illustrate the Importance of Electronic Conductivity in Vanadyl Phosphate Systems. *Journal of the Electrochemical Society*, **2021**, 168, 050502	3.9	0
16	Electrochemical Performance of Lithium-Ion Hybrid Supercapacitors based on Activated Carbon and Nanoplatelet Li4Ti5O12 Insertion Electrode Synthesized by Nanoscission Technique. *Materials Research Society Symposia Proceedings*, **2015**, 1740, 25		
15	The Hydrothermal Synthesis and Characterization of New Organically Templated Layered Vanadium Oxides by Methylamine. *Materials Research Society Symposia Proceedings*, **1997**, 497, 173		
14	Iron Phosphates as Cathodes of Lithium-Ion Batteries. *Materials Research Society Symposia Proceedings*, **2006**, 973, 1		
13	Electrospinning of Single-Crystal Vanadium Oxide Nanorods. *Materials Research Society Symposia Proceedings*, **2006**, 988, 1		
12	Transition Metal Oxides: Stoichiometry and Hydrothermal Synthesis for Intercalation Reactions. *Zeitschrift Fur Anorganische Und Allgemeine Chemie*, **2002**, 628, 2135-2135	1.3	
11	Vanadium Oxide Nanofibers and Vanadium Oxide Polyaniline Nanocomposite: Preparation, Characterization and Electrochemical Behavior. *Materials Research Society Symposia Proceedings*, **2003**, 788, 551		

List of Publications

10	Nanocomposite Electrodes for Advanced Lithium Batteries: The LiFePO4 Cathode. *Materials Research Society Symposia Proceedings*, **2001**, 703, 1	
9	The Syntheses and Characterization of Layered LiNi1-y-zMnyCozO2 Compounds. *Materials Research Society Symposia Proceedings*, **2002**, 756, 1	
8	Vanadium Oxide Frameworks Modified with Transition Metals. *Materials Research Society Symposia Proceedings*, **2000**, 658, 1071	
7	Manganese Vanadium Oxide Compounds as Cathodes for Lithium Batteries. *Materials Research Society Symposia Proceedings*, **2000**, 658, 9161	
6	Vanadium Oxide Nanotubes: Characterization and Electrochemical Behavior. *Materials Research Society Symposia Proceedings*, **2001**, 703, 1	
5	A Study of the Li|LixV2O4 Cell. *Materials Research Society Symposia Proceedings*, **1998**, 548, 239	
4	Synthesis and Characterization of Manganese Vanadium Oxides as Cathodes in Lithium Batteries. *Materials Research Society Symposia Proceedings*, **1999**, 581, 497	
3	Modified Sol-Gel Synthesis of Vanadium Oxide Nanocomposites Containing Surfactant Ions. *Materials Research Society Symposia Proceedings*, **1999**, 581, 387	
2	Hydrothermal Synthesis of Novel Vanadium Oxides. *Materials Research Society Symposia Proceedings*, **1996**, 453, 115	
1	Structural Degradations in the Bulk of Cathode Particles for Li-ion Batteries. *Microscopy and Microanalysis*, **2018**, 24, 1504-1505	0.5