

# Marca M Doeff

## List of Publications by Citations

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165  
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L-index

#	Paper	IF	Citations
152	Surface reconstruction and chemical evolution of stoichiometric layered cathode materials for lithium-ion batteries. <i>Nature Communications</i> , <b>2014</b> , 5, 3529	17.4	860
151	Effect of Surface Carbon Structure on the Electrochemical Performance of LiFePO <sub>4</sub> . <i>Electrochemical and Solid-State Letters</i> , <b>2003</b> , 6, A207		423
150	Electrochemical Insertion of Sodium into Carbon. <i>Journal of the Electrochemical Society</i> , <b>1993</b> , 140, L169-L170	3.70	385
149	The origin of high electrolyte-electrode interfacial resistances in lithium cells containing garnet type solid electrolytes. <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 18294-300	3.6	335
148	A review of Ni-based layered oxides for rechargeable Li-ion batteries. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 874-901	13	303
147	Synchrotron X-ray Analytical Techniques for Studying Materials Electrochemistry in Rechargeable Batteries. <i>Chemical Reviews</i> , <b>2017</b> , 117, 13123-13186	68.1	291
146	Effect of surface microstructure on electrochemical performance of garnet solid electrolytes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 2073-81	9.5	277
145	Electrochemical Performance of Sol-Gel Synthesized LiFePO <sub>4</sub> in Lithium Batteries. <i>Journal of the Electrochemical Society</i> , <b>2004</b> , 151, A1279	3.9	225
144	Factors Influencing the Quality of Carbon Coatings on LiFePO <sub>4</sub> . <i>Journal of the Electrochemical Society</i> , <b>2007</b> , 154, A389	3.9	211
143	The Measurement of a Complete Set of Transport Properties for a Concentrated Solid Polymer Electrolyte Solution. <i>Journal of the Electrochemical Society</i> , <b>1995</b> , 142, 1859-1868	3.9	199
142	Optimization of carbon coatings on LiFePO <sub>4</sub> . <i>Journal of Power Sources</i> , <b>2006</b> , 163, 180-184	8.9	193
141	Structural and Electrochemical Consequences of Al and Ga Cosubstitution in LiLaZrO Solid Electrolytes. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 2384-2392	9.6	181
140	Metal segregation in hierarchically structured cathode materials for high-energy lithium batteries. <i>Nature Energy</i> , <b>2016</b> , 1,	62.3	179
139	Interrelationships among Grain Size, Surface Composition, Air Stability, and Interfacial Resistance of Al-Substituted Li <sub>7</sub> La <sub>3</sub> Zr <sub>2</sub> O <sub>12</sub> Solid Electrolytes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 17649-17655	8.55	172
138	Oxygen Release Induced Chemomechanical Breakdown of Layered Cathode Materials. <i>Nano Letters</i> , <b>2018</b> , 18, 3241-3249	11.5	163
137	New materials based on a layered sodium titanate for dual electrochemical Na and Li intercalation systems. <i>Energy and Environmental Science</i> , <b>2013</b> , 6, 2538	35.4	163
136	Orthorhombic Na <sub>x</sub> MnO <sub>2</sub> as a Cathode Material for Secondary Sodium and Lithium Polymer Batteries. <i>Journal of the Electrochemical Society</i> , <b>1994</b> , 141, L145-L147	3.9	155

135	Nanoporous spherical LiFePO <sub>4</sub> for high performance cathodes. <i>Energy and Environmental Science</i> , <b>2011</b> , 4, 885	35.4	137
134	Effect of microstructure and surface impurity segregation on the electrical and electrochemical properties of dense Al-substituted Li <sub>7</sub> La <sub>3</sub> Zr <sub>2</sub> O <sub>12</sub> . <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 172-181	13	136
133	Profiling the nanoscale gradient in stoichiometric layered cathode particles for lithium-ion batteries. <i>Energy and Environmental Science</i> , <b>2014</b> , 7, 3077	35.4	133
132	Electrochemical Characteristics of Layered Transition Metal Oxide Cathode Materials for Lithium Ion Batteries: Surface, Bulk Behavior, and Thermal Properties. <i>Accounts of Chemical Research</i> , <b>2018</b> , 51, 89-96	24.3	128
131	A spongy nickel-organic CO reduction photocatalyst for nearly 100% selective CO production. <i>Science Advances</i> , <b>2017</b> , 3, e1700921	14.3	124
130	TEM Study of Fracturing in Spherical and Plate-like LiFePO <sub>4</sub> Particles. <i>Electrochemical and Solid-State Letters</i> , <b>2008</b> , 11, A25		119
129	Transport Properties of the Solid Polymer Electrolyte System P(EO) <sub>n</sub> LiTFSI. <i>Journal of Physical Chemistry B</i> , <b>2000</b> , 104, 3476-3480	3.4	109
128	Charge Heterogeneity and Surface Chemistry in Polycrystalline Cathode Materials. <i>Joule</i> , <b>2018</b> , 2, 464-477	7.8	107
127	Sodiation Kinetics of Metal Oxide Conversion Electrodes: A Comparative Study with Lithiation. <i>Nano Letters</i> , <b>2015</b> , 15, 5755-63	11.5	100
126	Lithium Insertion Processes of Orthorhombic Na <sub>x</sub> MnO <sub>2</sub> -Based Electrode Materials. <i>Journal of the Electrochemical Society</i> , <b>1996</b> , 143, 2507-2516	3.9	98
125	Direct synthesis of LiNi <sub>1/3</sub> Co <sub>1/3</sub> Mn <sub>1/3</sub> O <sub>2</sub> from nitrate precursors. <i>Electrochemistry Communications</i> , <b>2004</b> , 6, 767-772	5.1	93
124	Hyperfine fields at the Li site in LiFePO <sub>4</sub> -type olivine materials for lithium rechargeable batteries: a <sup>7</sup> Li MAS NMR and SQUID study. <i>Journal of the American Chemical Society</i> , <b>2002</b> , 124, 3832-3	16.4	93
123	Transitions from near-surface to interior redox upon lithiation in conversion electrode materials. <i>Nano Letters</i> , <b>2015</b> , 15, 1437-44	11.5	92
122	Spherical nanoporous LiCoPO <sub>4</sub> /C composites as high performance cathode materials for rechargeable lithium-ion batteries. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 9984		87
121	Chemical and structural stability of lithium-ion battery electrode materials under electron beam. <i>Scientific Reports</i> , <b>2014</b> , 4, 5694	4.9	86
120	Depth-Dependent Redox Behavior of LiNi <sub>0.6</sub> Mn <sub>0.2</sub> Co <sub>0.2</sub> O <sub>2</sub> . <i>Journal of the Electrochemical Society</i> , <b>2018</b> , 165, A696-A704	3.9	84
119	Carbon Surface Layers on a High-Rate LiFePO <sub>4</sub> . <i>Electrochemical and Solid-State Letters</i> , <b>2006</b> , 9, A360		82
118	Impact of carbon structure and morphology on the electrochemical performance of LiFePO <sub>4</sub> /C composites. <i>Journal of Solid State Electrochemistry</i> , <b>2008</b> , 12, 995-1001	2.6	78

- 117 Challenges for and Pathways toward Li-Metal-Based All-Solid-State Batteries. *ACS Energy Letters*, 1399-1404, 2014, 78
- 116 Electrochemical and Physical Properties of Ti-Substituted Layered Nickel Manganese Cobalt Oxide (NMC) Cathode Materials. *Journal of the Electrochemical Society*, 2012, 159, A1383-A1392 3.9 77
- 115 Nanoscale LiFePO<sub>4</sub> and Li<sub>4</sub>Ti<sub>5</sub>O<sub>12</sub> for High Rate Li-Ion Batteries. *Journal of the Electrochemical Society*, 2009, 156, A1041 3.9 77
- 114 <sup>7</sup>Li and <sup>31</sup>P Magic Angle Spinning Nuclear Magnetic Resonance of LiFePO<sub>4</sub>-Type Materials. *Electrochemical and Solid-State Letters*, 2002, 5, A95 68
- 113 Structure and Electrochemistry of LiNi<sub>1-β</sub>Co<sub>1-β</sub>M<sub>y</sub>Mn<sub>1-β</sub>O<sub>2</sub> (M=Ti, Al, Fe) Positive Electrode Materials. *Journal of the Electrochemical Society*, 2009, 156, A192 3.9 66
- 112 Titanate Anodes for Sodium Ion Batteries. *Journal of Inorganic and Organometallic Polymers and Materials*, 2014, 24, 5-14 3.2 64
- 111 Computational and Experimental Investigation of Ti Substitution in Li<sub>1</sub>(Ni<sub>x</sub>Mn<sub>x</sub>Co<sub>1-2x-y</sub>Ti<sub>y</sub>)O<sub>2</sub> for Lithium Ion Batteries. *Journal of Physical Chemistry Letters*, 2014, 5, 3649-55 6.4 64
- 110 Synthesis, Crystal Chemistry, and Electrochemical Properties of Li<sub>(7-2x)</sub>La<sub>3</sub>Zr<sub>(2-x)</sub>Mo<sub>(x)</sub>O<sub>12</sub> (x = 0.1-0.4): Stabilization of the Cubic Garnet Polymorph via Substitution of Zr(4+) by Mo(6+). *Inorganic Chemistry*, 2015, 54, 10440-9 5.1 63
- 109 Three-dimensional elemental imaging of Li-ion solid-state electrolytes using fs-laser induced breakdown spectroscopy (LIBS). *Journal of Analytical Atomic Spectrometry*, 2015, 30, 2295-2302 3.7 62
- 108 Structural Underpinnings of the Enhanced Cycling Stability upon Al-Substitution in LiNi<sub>0.45</sub>Mn<sub>0.45</sub>Co<sub>0.1</sub>Al<sub>y</sub>O<sub>2</sub> Positive Electrode Materials for Li-ion Batteries. *Chemistry of Materials*, 2012, 24, 3307-3317 9.6 62
- 107 The Use of Polydisulfides and Copolymeric Disulfides in the Li/PEO/SRPE Battery System. *Journal of the Electrochemical Society*, 1992, 139, 2077-2081 3.9 62
- 106 Mesoscale Chemomechanical Interplay of the LiNi<sub>0.8</sub>Co<sub>0.15</sub>Al<sub>0.05</sub>O<sub>2</sub> Cathode in Solid-State Polymer Batteries. *Chemistry of Materials*, 2019, 31, 491-501 9.6 62
- 105 A High-Rate Manganese Oxide for Rechargeable Lithium Battery Applications. *Journal of the Electrochemical Society*, 2001, 148, A230 3.9 60
- 104 Li ion conductors based on laponite/poly(ethylene oxide) composites. *Solid State Ionics*, 1998, 113-115, 109-115 3.3 59
- 103 Corrosion of Aluminum Current Collectors in Lithium-Ion Batteries with Electrolytes Containing LiPF<sub>6</sub>. *Journal of the Electrochemical Society*, 2005, 152, B448 3.9 59
- 102 Compatibility of Li<sub>x</sub>Ti<sub>y</sub>Mn<sub>1-y</sub>O<sub>2</sub> (y=0, 0.11) Electrode Materials with Pyrrolidinium-Based Ionic Liquid Electrolyte Systems. *Journal of the Electrochemical Society*, 2008, 155, A172 3.9 57
- 101 Lepidocrocite-type Layered Titanate Structures: New Lithium and Sodium Ion Intercalation Anode Materials. *Chemistry of Materials*, 2014, 26, 2502-2512 9.6 56
- 100 Rechargeable Na / Na<sub>x</sub>CoO<sub>2</sub> and Na<sub>15</sub>Pb<sub>4</sub> / Na<sub>x</sub>CoO<sub>2</sub> Polymer Electrolyte Cells. *Journal of the Electrochemical Society*, 1993, 140, 2726-2733 3.9 56

99	Interface Instability of Fe-Stabilized LiLaZrO versus Li Metal. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 3780-3785	3.8	55
98	Transport properties of binary salt polymer electrolytes. <i>Journal of Power Sources</i> , <b>2000</b> , 89, 227-231	8.9	55
97	Transport Property and Raman Spectroscopic Studies of the Polymer Electrolyte System P ( EO ) n - NaTFSI. <i>Journal of the Electrochemical Society</i> , <b>1998</b> , 145, 1586-1592	3.9	55
96	Microwave Plasma Chemical Vapor Deposition of Carbon Coatings on LiNi <sub>1/3</sub> Co <sub>1/3</sub> Mn <sub>1/3</sub> O <sub>2</sub> for Li-Ion Battery Composite Cathodes. <i>Journal of the Electrochemical Society</i> , <b>2009</b> , 156, A48	3.9	53
95	Aliovalent titanium substitution in layered mixed Li NiMnCo oxides for lithium battery applications. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 9991		52
94	An electrochemical study of the substitution and decomposition reactions of (arene)tricarbonylchromium radical cations. <i>Journal of the American Chemical Society</i> , <b>1988</b> , 110, 2109-2116	16.4	51
93	Elucidation of the surface characteristics and electrochemistry of high-performance LiNiO <sub>2</sub> . <i>Chemical Communications</i> , <b>2016</b> , 52, 4239-42	5.8	50
92	Thin Film Rechargeable Room Temperature Batteries Using Solid Redox Polymerization Electrodes. <i>Journal of the Electrochemical Society</i> , <b>1992</b> , 139, 1808-1812	3.9	50
91	Garnet Electrolyte Surface Degradation and Recovery. <i>ACS Applied Energy Materials</i> , <b>2018</b> , 1, 7244-7252	6.1	50
90	Effects of crystallinity and impurities on the electrical conductivity of Li <sub>1-x</sub> Al <sub>x</sub> PO <sub>4</sub> thin films. <i>Thin Solid Films</i> , <b>2015</b> , 576, 55-60	2.2	47
89	Propagation topography of redox phase transformations in heterogeneous layered oxide cathode materials. <i>Nature Communications</i> , <b>2018</b> , 9, 2810	17.4	45
88	Transport property measurements of polymer electrolytes. <i>Electrochimica Acta</i> , <b>1998</b> , 43, 1387-1393	6.7	44
87	Thin film solid state sodium batteries for electric vehicles. <i>Electrochimica Acta</i> , <b>1995</b> , 40, 2205-2210	6.7	44
86	Transport Properties of a High Molecular Weight Poly(propylene oxide)- LiCF <sub>3</sub> SO <sub>3</sub> System. <i>Journal of the Electrochemical Society</i> , <b>1999</b> , 146, 2024-2028	3.9	43
85	Structure and surface energy characteristics of a series of pseudo-perfluoroalkyl polysiloxanes. <i>Macromolecules</i> , <b>1989</b> , 22, 2951-2957	5.5	43
84	All-Solid-State Batteries Using Rationally Designed Garnet Electrolyte Frameworks. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 170-175	6.1	43
83	Electrochemical and structural characterization of titanium-substituted manganese oxides based on Na <sub>0.44</sub> MnO <sub>2</sub> . <i>Journal of Power Sources</i> , <b>2004</b> , 135, 240-248	8.9	41
82	Electrode Materials with the Na <sub>0.44</sub> MnO <sub>2</sub> Structure: Effect of Titanium Substitution on Physical and Electrochemical Properties. <i>Chemistry of Materials</i> , <b>2008</b> , 20, 3404-3411	9.6	39

81	Influence of synthesis conditions on the surface passivation and electrochemical behavior of layered cathode materials. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 19833-19840	13	38
80	FTIR and Raman Study of the $\text{Li}_{x}\text{Ti}_{y}\text{Mn}_{1-y}\text{O}_{2}$ ( $y=0, 0.11$ ) Cathodes in Methylpropyl Pyrrolidinium Bis(fluoro-sulfonyl)imide, LiTFSI Electrolyte. <i>Journal of the Electrochemical Society</i> , <b>2009</b> , 156, A120	3.9	38
79	Effect of Electrolyte Composition on the Performance of Sodium/Polymer Cells. <i>Journal of the Electrochemical Society</i> , <b>1997</b> , 144, L20-L22	3.9	38
78	Synthesis and characterization of a copper-substituted manganese oxide with the $\text{Na}_{0.44}\text{MnO}_2$ structure. <i>Journal of Power Sources</i> , <b>2002</b> , 112, 294-297	8.9	37
77	Influence of Substitution on the Structure and Electrochemistry of Layered Manganese Oxides. <i>Chemistry of Materials</i> , <b>2003</b> , 15, 4456-4463	9.6	36
76	Tuning complex transition metal hydroxide nanostructures as active catalysts for water oxidation by a laser-chemical route. <i>Nano Letters</i> , <b>2015</b> , 15, 2498-503	11.5	35
75	Thermally-driven mesopore formation and oxygen release in delithiated NCA cathode particles. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 12593-12603	13	32
74	Layered Manganese Oxide Intergrowth Electrodes for Rechargeable Lithium Batteries. 2. Substitution with Al. <i>Chemistry of Materials</i> , <b>2005</b> , 17, 1044-1054	9.6	32
73	Thermally driven mesoscale chemomechanical interplay in $\text{Li}_{0.5}\text{Ni}_{0.6}\text{Mn}_{0.2}\text{Co}_{0.2}\text{O}_2$ cathode materials. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 23055-23061	13	32
72	A New Anion Receptor for Improving the Interface between Lithium- and Manganese-Rich Layered Oxide Cathode and the Electrolyte. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 2141-2149	9.6	31
71	Oriented porous LLZO 3D structures obtained by freeze casting for battery applications. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 20861-20870	13	30
70	Synthesis and electrochemistry of $\text{Li}_3\text{MnO}_4$ : Mn in the +5 oxidation state. <i>Journal of Power Sources</i> , <b>2007</b> , 172, 189-197	8.9	30
69	Layered Manganese Oxide Intergrowth Electrodes for Rechargeable Lithium Batteries. 1. Substitution with Co or Ni. <i>Chemistry of Materials</i> , <b>2005</b> , 17, 1036-1043	9.6	28
68	Structural and Electrochemical Investigation of $\text{Li}(\text{Ni}_{0.4}\text{Co}_{0.15}\text{Al}_{0.05}\text{Mn}_{0.4})\text{O}_2$ Cathode Material. <i>Journal of the Electrochemical Society</i> , <b>2010</b> , 157, A1317	3.9	27
67	Investigating the Intercalation Chemistry of Alkali Ions in Fluoride Perovskites. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 1561-1568	9.6	26
66	Facile, ethylene glycol-promoted microwave-assisted solvothermal synthesis of high-performance $\text{LiCoPO}_4$ as a high-voltage cathode material for lithium-ion batteries. <i>RSC Advances</i> , <b>2016</b> , 6, 82984-82994	3.7	26
65	The Impact of Aluminum and Iron Substitution on the Structure and Electrochemistry of $\text{Li}(\text{Ni}_{0.4}\text{Co}_{0.2}\text{M}_{y}\text{Mn}_{0.4})\text{O}_2$ Materials. <i>Journal of the Electrochemical Society</i> , <b>2009</b> , 156, A1011	3.9	26
64	Hydrogen bonding from coordinated imidazole in ferric porphyrin complexes. Effect on the iron(III)/iron(II) reduction potential. <i>Inorganic Chemistry</i> , <b>1983</b> , 22, 851-852	5.1	26



63	Axial ligand substitution reactions of ruthenium(II) phthalocyanine. <i>Inorganic Chemistry</i> , <b>1981</b> , 20, 1683-1687	26
62	Synthesis and electrochemical characterization of M <sub>2</sub> Mn <sub>3</sub> O <sub>8</sub> (M=Ca, Cu) compounds and derivatives. <i>Solid State Ionics</i> , <b>2006</b> , 177, 893-900	3.3 25
61	Atomic Insights into the Enhanced Surface Stability in High Voltage Cathode Materials by Ultrathin Coating. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1602873	15.6 24
60	Unveiling the mechanisms of lithium dendrite suppression by cationic polymer film induced solid electrolyte interphase modification. <i>Energy and Environmental Science</i> , <b>2020</b> , 13, 1832-1842	35.4 23
59	Polyorganodisulfide electrodes for solid-state batteries and electrochromic devices. <i>Solid State Ionics</i> , <b>1993</b> , 60, 175-187	3.3 23
58	Thermal stress-induced charge and structure heterogeneity in emerging cathode materials. <i>Materials Today</i> , <b>2020</b> , 35, 87-98	21.8 23
57	Particle size-controllable microwave-assisted solvothermal synthesis of the high-voltage cathode material LiCoPO <sub>4</sub> using water/ethylene glycol solvent blends. <i>Solid State Sciences</i> , <b>2017</b> , 65, 100-109	3.4 22
56	Solid-state electrolyte considerations for electric vehicle batteries. <i>Sustainable Energy and Fuels</i> , <b>2019</b> , 3, 1647-1659	5.8 22
55	Tailoring the surface properties of LiNi <sub>0.4</sub> Mn <sub>0.4</sub> Co <sub>0.2</sub> O <sub>2</sub> by titanium substitution for improved high voltage cycling performance. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 21778-81	3.6 22
54	Hydrogen bonding in metalloporphyrin reactions. Reaction of (tetraphenylporphinato)iron(III) chloride and N-methylimidazole. <i>Inorganic Chemistry</i> , <b>1982</b> , 21, 3699-3705	5.1 22
53	Scalable Freeze-Tape-Casting Fabrication and Pore Structure Analysis of 3D LLZO Solid-State Electrolytes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 3494-3501	9.5 22
52	In Situ Engineering of the Electrode-Electrolyte Interface for Stabilized Overlithiated Cathodes. <i>Advanced Materials</i> , <b>2017</b> , 29, 1604549	24 21
51	Thermal analysis of a solid polymer electrolyte and a subsequent electrochemical investigation of a lithium polymer battery. <i>Solid State Ionics</i> , <b>2003</b> , 158, 177-186	3.3 21
50	Enhanced lithium ion transport in garnet-type solid state electrolytes. <i>Journal of Electroceramics</i> , <b>2017</b> , 38, 168-175	1.5 20
49	Effect of lithium borate addition on the physical and electrochemical properties of the lithium ion conductor Li <sub>3.4</sub> Si <sub>0.4</sub> P <sub>0.6</sub> O <sub>4</sub> . <i>Solid State Ionics</i> , <b>2013</b> , 231, 109-115	3.3 20
48	The use of redox polymerization electrodes in lithium batteries with liquid electrolytes. <i>Journal of Applied Electrochemistry</i> , <b>1992</b> , 22, 307-309	2.6 20
47	Three-Dimensionally Aligned Sulfur Electrodes by Directional Freeze Tape Casting. <i>Nano Letters</i> , <b>2019</b> , 19, 4731-4737	11.5 19
46	Combustion synthesis of nanoparticulate LiMg <sub>x</sub> Mn <sub>1-x</sub> PO <sub>4</sub> (x = 0, 0.1, 0.2) carbon composites. <i>Journal of Materials Research</i> , <b>2010</b> , 25, 1460-1468	2.5 19

45	Electrochemical characterization of manganese oxide cathode materials based on Na <sub>0.4</sub> MnO <sub>2</sub> . <i>Journal of Power Sources</i> , <b>2004</b> , 129, 296-302	8.9	19
44	Reactions of matrix-isolated iron atoms with dinitrogen. <i>Inorganic Chemistry</i> , <b>1984</b> , 23, 4108-4110	5.1	19
43	Removal of Na <sup>+</sup> and Ca <sup>2+</sup> with Prussian blue analogue electrodes for brackish water desalination. <i>Desalination</i> , <b>2020</b> , 487, 114479	10.3	17
42	A study of layered lithium manganese oxide cathode materials. <i>Journal of Power Sources</i> , <b>2003</b> , 119-121, 145-149	8.9	17
41	Crystal Chemistry and Electrochemistry of Li <sub>x</sub> Mn <sub>1.5</sub> Ni <sub>0.5</sub> O <sub>4</sub> Solid Solution Cathode Materials. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 6818-6828	9.6	15
40	Effect of structure on the storage characteristics of manganese oxide electrode materials. <i>Journal of Power Sources</i> , <b>2007</b> , 165, 573-580	8.9	15
39	Experimental and Computational Investigation of Lepidocrocite Anodes for Sodium-Ion Batteries. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 4284-4291	9.6	15
38	Effect of Si(IV) substitution on electrochemical, magnetic and spectroscopic performance of nanosized LiMn <sub>2</sub> SixO <sub>4</sub> . <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 10857	13	14
37	Effect of Carbon Coating on the Physicochemical and Electrochemical Properties of Fe <sub>2</sub> O <sub>3</sub> Nanoparticles for Anode Application in High Performance Lithium Ion Batteries. <i>Inorganic Chemistry</i> , <b>2015</b> , 54, 5239-48	5.1	14
36	Structural and Chemical Evolution of Amorphous Nickel Iron Complex Hydroxide upon Lithiation/Delithiation. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 1583-1589	9.6	13
35	Intermittent Contact Alternating Current Scanning Electrochemical Microscopy: A Method for Mapping Conductivities in Solid Li Ion Conducting Electrolyte Samples. <i>Frontiers in Energy Research</i> , <b>2016</b> , 4,	3.8	13
34	Characteristics of laminated electrochromic devices using polyorganodisulfide electrodes. <i>Solar Energy Materials and Solar Cells</i> , <b>1994</b> , 33, 91-105	6.4	12
33	Synthesis and characterization of metastable, 20 nm-sized Pna21-LiCoPO <sub>4</sub> nanospheres. <i>Journal of Solid State Chemistry</i> , <b>2017</b> , 248, 9-17	3.3	11
32	Structural Degradation of Layered Cathode Materials in Lithium-Ion Batteries Induced by Ball Milling. <i>Journal of the Electrochemical Society</i> , <b>2019</b> , 166, A1964-A1971	3.9	11
31	High-voltage cathode materials for lithium-ion batteries: freeze-dried LiMn <sub>0.8</sub> Fe <sub>0.1</sub> M <sub>0.1</sub> PO <sub>4</sub> /C (M = Fe, Co, Ni, Cu) nanocomposites. <i>Inorganic Chemistry</i> , <b>2015</b> , 54, 2671-8	5.1	11
30	XAFS Investigations of LiNi <sub>0.45</sub> Mn <sub>0.45</sub> Co <sub>0.1</sub> Al <sub>y</sub> O <sub>2</sub> Positive Electrode Materials. <i>Journal of the Electrochemical Society</i> , <b>2012</b> , 159, A1562-A1571	3.9	11
29	Effect of Liquid Electrolyte Soaking on the Interfacial Resistance of LiLaZrO for All-Solid-State Lithium Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 20605-20612	9.5	11
28	Battery Cathodes <b>2013</b> , 5-49		10



27	Electrochemical Properties of Electrodes Derived from $\text{NaTi}_3\text{O}_6 \cdot 2\text{H}_2\text{O}$ in Sodium and Lithium Cells. <i>Journal of the Electrochemical Society</i> , <b>2015</b> , 162, A52-A59	3.9	9
26	Distinct Surface and Bulk Thermal Behaviors of $\text{LiNiMnCoO}$ Cathode Materials as a Function of State of Charge. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 11643-11656	9.5	8
25	Tailoring Transition-Metal Hydroxides and Oxides by Photon-Induced Reactions. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 14272-14276	16.4	8
24	Characterization of electrode materials for lithium ion and sodium ion batteries using synchrotron radiation techniques. <i>Journal of Visualized Experiments</i> , <b>2013</b> , e50594	1.6	8
23	Investigation of layered intergrowth $\text{Li}_x\text{MyMn}_{1-x}\text{O}_2+z$ (M=Ni, Co, Al) compounds as positive electrodes for Li-ion batteries. <i>Solid State Ionics</i> , <b>2004</b> , 175, 225-228	3.3	8
22	Sulfur-Doped Aluminum-Substituted Manganese Oxide Spinel for Lithium-Ion Battery Applications. <i>Journal of the Electrochemical Society</i> , <b>2003</b> , 150, A1060	3.9	7
21	$^{23}\text{Na}$ -NMR studies of $\text{Na}_x\text{CoO}_2$ cathode materials. <i>Solid State Ionics</i> , <b>1996</b> , 86-88, 797-803	3.3	7
20	$\text{CoLi}[(\text{OH})\text{O}][(\text{POOH})(\text{PO})]$ , a Lithium-Stabilized, Mixed-Valent Cobalt(II,III) Hydroxide Phosphate Framework. <i>Inorganic Chemistry</i> , <b>2017</b> , 56, 10950-10961	5.1	6
19	Electrochemical Characterization of Orthorhombic $\text{NaXMnO}_2$ for Alkali Metal Polymer Batteries. <i>Materials Research Society Symposia Proceedings</i> , <b>1995</b> , 393, 107		6
18	Characterization and Electrochemical Performance of Substituted $\text{LiNi}_{0.4}\text{Co}_{0.2-y}\text{Al}_y\text{Mn}_{0.4}\text{O}_2$ ( $0 \leq y \leq 0.2$ ) Cathode Materials. <i>ECS Transactions</i> , <b>2007</b> , 11, 27-33 <sup>1</sup>		5
17	TEM Studies of Carbon Coated $\text{LiFePO}_4$ After Charge Discharge Cycling. <i>ECS Transactions</i> , <b>2006</b> , 3, 29-36		4
16	Reactions of matrix isolated from atoms with nitric oxide. <i>Inorganica Chimica Acta</i> , <b>1986</b> , 117, 151-155	2.7	4
15	Optimization of nonatitanate electrodes for sodium-ion batteries. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 19917-19926	13	4
14	Long-term chemothermal stability of delithiated NCA in polymer solid-state batteries. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 27135-27147	13	4
13	The origin of impedance rise in Ni-Rich positive electrodes for lithium-ion batteries. <i>Journal of Power Sources</i> , <b>2021</b> , 498, 229885	8.9	3
12	A Study of Model-Based Protective Fast-Charging and Associated Degradation in Commercial Smartphone Cells: Insights on Cathode Degradation as a Result of Lithium Depositions on the Anode. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2003019	21.8	3
11	Direct synthesis and characterization of mixed-valent $\text{Li}_{0.5}\text{CoPO}_4$ , a Li-deficient derivative of the Cmc <sub>m</sub> polymorph of $\text{LiCoPO}_4$ . <i>RSC Advances</i> , <b>2017</b> , 7, 28069-28081	3.7	2
10	Tailoring Transition-Metal Hydroxides and Oxides by Photon-Induced Reactions. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 14484-14488	3.6	2

9	Aluminum Migration during Deposition of Li <sub>7</sub> La <sub>3</sub> Zr <sub>2</sub> O <sub>12</sub> Thin Films on Aluminum Oxide Substrates. <i>ECS Transactions</i> , <b>2013</b> , 53, 1-4	1	2
8	Reaction of matrix-isolated iron atoms with carbon disulfide. <i>Inorganic Chemistry</i> , <b>1986</b> , 25, 2474-2476	5.1	2
7	A layered nonstoichiometric lepidocrocite-type sodium titanate anode material for sodium-ion batteries. <i>MRS Energy &amp; Sustainability</i> , <b>2021</b> , 8, 88	2.2	2
6	Effects of the particle properties on electrochemical performance of nanocrystalline LiAl <sub>0.1</sub> Cu <sub>0.1</sub> Mn <sub>1.8</sub> O <sub>4</sub> cathode materials prepared by ultrasonic spray pyrolysis. <i>Journal of Electroanalytical Chemistry</i> , <b>2017</b> , 792, 1-7	4.1	1
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4	Surface reconstruction and chemical evolution of stoichiometric layered cathode materials for lithium-ion batteries		1
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2	Editorial for the JECR special issue on all solid-state batteries. <i>Journal of Electroceramics</i> , <b>2017</b> , 38, 125-127		
1	Location-Dependent Cobalt Deposition in Smartphone Cells upon Long-Term Fast-Charging Visualized by Synchrotron X-ray Fluorescence. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 6318-6328	9.6	