

# Eric Russell McCalla

## List of Publications by Year in descending order

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29  
papers

1,806  
citations

516710

16  
h-index

477307

29  
g-index

32  
all docs

32  
docs citations

32  
times ranked

2384  
citing authors

#	ARTICLE	IF	CITATIONS
1	Combinatorial methods in advanced battery materials design. Canadian Journal of Chemistry, 2022, 100, 132-143.	1.1	12
2	Topology to improve battery technology. Nature Sustainability, 2022, 5, 181-182.	23.7	5
3	Evaluating the effectiveness of <i>in situ</i> characterization techniques in overcoming mechanistic limitations in lithium-sulfur batteries. Energy and Environmental Science, 2022, 15, 1423-1460.	30.8	37
4	Suite of High-Throughput Experiments for Screening Solid Electrolytes for Li Batteries. Journal of the Electrochemical Society, 2022, 169, 050504.	2.9	9
5	High-throughput development of Na <sub>2</sub> ZnSiO <sub>4</sub> -based hybrid electrolytes for sodium-ion batteries. Journal of Power Sources, 2022, 541, 231706.	7.8	5
6	The role of metal substitutions in the development of Li batteries, part I: cathodes. Materials Advances, 2021, 2, 3474-3518.	5.4	22
7	The role of metal substitutions in the development of Li batteries, part II: solid electrolytes. Materials Advances, 2021, 2, 2846-2875.	5.4	21
8	Understanding magnetic phase coexistence in $Ru_{2-x}Mn_x$ Heusler alloys: A neutron scattering, thermodynamic, and phenomenological analysis. Physical Review Materials, 2021, 5, .	2.4	3
9	Metastability in La <sub>1-x</sub> Ti <sub>x</sub> O Perovskite Materials and Its Impact on Ionic Conductivity. Chemistry of Materials, 2021, 33, 4792-4804.	6.7	15
10	Synthesis of Boroxine and Dioxaborole Covalent Organic Frameworks via Transesterification and Metathesis of Pinacol Boronates. Journal of the American Chemical Society, 2021, 143, 13274-13280.	13.7	17
11	High-throughput design of Na <sub>2</sub> FeMnO cathodes for Na-ion batteries. Journal of Materials Chemistry A, 2021, 10, 251-265.	10.3	15
12	Impact of Nickel Substitution into Model Li-Rich Oxide Cathode Materials for Li-Ion Batteries. Chemistry of Materials, 2020, 32, 849-857.	6.7	16
13	Development of High-Throughput Methods for Sodium-Ion Battery Cathodes. ACS Combinatorial Science, 2020, 22, 311-318.	3.8	21
14	Accelerated Screening of High-Energy Lithium-Ion Battery Cathodes. ACS Applied Energy Materials, 2019, 2, 8388-8393.	5.1	18
15	Changes in physical properties of 4C pyrrhotite (Fe <sub>7</sub> S <sub>8</sub> ) across the 32 K Besnus transition. American Mineralogist, 2018, 103, 1674-1689.	1.9	8
16	Electrical transport, magnetic, and thermodynamic properties of La-, Pr-, and Nd-doped BaSn <sub>1-x</sub> O <sub>3</sub> single crystals. Physical Review Materials, 2018, 2, .	2.4	20
17	Evidence for anionic redox activity in a tridimensional-ordered Li-rich positive electrode $\text{Li}_2\text{IrO}_3$ . Nature Materials, 2017, 16, 580-586.	27.5	290
18	A Unified View of the Substitution-Dependent Antiferrodistortive Phase Transition in SrTiO <sub>3</sub> . Chemistry of Materials, 2016, 28, 7973-7981.	6.7	14

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19	Strong Oxygen Participation in the Redox Governing the Structural and Electrochemical Properties of Na-Rich Layered Oxide $\text{Na}_2\text{IrO}_3$ . <i>Chemistry of Materials</i> , 2016, 28, 8278-8288.	6.7	132
20	X-ray Photoemission Spectroscopy Study of Cationic and Anionic Redox Processes in High-Capacity Li-Ion Battery Layered-Oxide Electrodes. <i>Journal of Physical Chemistry C</i> , 2016, 120, 862-874.	3.1	122
21	Visualization of O-O peroxy-like dimers in high-capacity layered oxides for Li-ion batteries. <i>Science</i> , 2015, 350, 1516-1521.	12.6	659
22	Novel Complex Stacking of Fully-Ordered Transition Metal Layers in $\text{Li}_4\text{FeSbO}_6$ Materials. <i>Chemistry of Materials</i> , 2015, 27, 1699-1708.	6.7	40
23	Combinatorial Study of the Li-Ni-Mn-Co Oxide Pseudoquaternary System for Use in Li-Ion Battery Materials Research. <i>ACS Combinatorial Science</i> , 2015, 17, 381-391.	3.8	39
24	Reversible Li-Intercalation through Oxygen Reactivity in Li-Rich Li-Fe-Te Oxide Materials. <i>Journal of the Electrochemical Society</i> , 2015, 162, A1341-A1351.	2.9	47
25	Understanding the Roles of Anionic Redox and Oxygen Release during Electrochemical Cycling of Lithium-Rich Layered $\text{Li}_4\text{FeSbO}_6$ . <i>Journal of the American Chemical Society</i> , 2015, 137, 4804-4814.	13.7	155
26	Consequences of Combinatorial Studies of Positive Electrodes for Li-ion Batteries. Springer Theses, 2014, , .	0.1	8
27	Strain in electroless copper films monitored by X-ray diffraction during and after deposition and its dependence on bath chemistry. <i>Thin Solid Films</i> , 2011, 519, 4377-4383.	1.8	16
28	Template-free synthesis and photocatalytic activity of hierarchical porous titania with controlled texture and crystalline structure. <i>Applied Catalysis A: General</i> , 2010, 387, 231-241.	4.3	27
29	Amorphization of crystalline orthoboric acid on a vitreous $\text{B}_2\text{O}_3$ substrate. <i>Journal of Materials Research</i> , 2002, 17, 3098-3104.	2.6	13