

Dennis W Mcowen

List of Publications by Year in descending order

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Version: 2024-02-01

31
papers

2,975
citations

516561

16
h-index

752573

20
g-index

31
all docs

31
docs citations

31
times ranked

3342
citing authors

#	ARTICLE	IF	CITATIONS
1	Garnet-Type Solid-State Electrolytes: Materials, Interfaces, and Batteries. <i>Chemical Reviews</i> , 2020, 120, 4257-4300.	23.0	655
2	Three-dimensional bilayer garnet solid electrolyte based high energy density lithium metal-sulfur batteries. <i>Energy and Environmental Science</i> , 2017, 10, 1568-1575.	15.6	499
3	Concentrated electrolytes: decrypting electrolyte properties and reassessing Al corrosion mechanisms. <i>Energy and Environmental Science</i> , 2014, 7, 416-426.	15.6	332
4	Continuous plating/stripping behavior of solid-state lithium metal anode in a 3D ion-conductive framework. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 3770-3775.	8.3	250
5	3D-Printing Electrolytes for Solid-State Batteries. <i>Advanced Materials</i> , 2018, 30, e1707132.	11.1	236
6	High-rate lithium cycling in a scalable trilayer Li-garnet-electrolyte architecture. <i>Materials Today</i> , 2019, 22, 50-57.	8.3	233
7	Three-Dimensional, Solid-State Mixed Electron-Ion Conductive Framework for Lithium Metal Anode. <i>Nano Letters</i> , 2018, 18, 3926-3933.	4.5	175
8	Lithium-ion conductive ceramic textile: A new architecture for flexible solid-state lithium metal batteries. <i>Materials Today</i> , 2018, 21, 594-601.	8.3	134
9	3D lithium metal anodes hosted in asymmetric garnet frameworks toward high energy density batteries. <i>Energy Storage Materials</i> , 2018, 14, 376-382.	9.5	114
10	All-in-one lithium-sulfur battery enabled by a porous-dense-porous garnet architecture. <i>Energy Storage Materials</i> , 2018, 15, 458-464.	9.5	108
11	Solvate Structures and Computational/Spectroscopic Characterization of Lithium Difluoro(oxalato)borate (LiDFOB) Electrolytes. <i>Journal of Physical Chemistry C</i> , 2013, 117, 5521-5531.	1.5	58
12	Electrolyte Solvation and Ionic Association. <i>Journal of the Electrochemical Society</i> , 2013, 160, A2100-A2110.	1.3	43
13	N-Alkyl-N-methylpyrrolidinium difluoro(oxalato)borate ionic liquids: Physical/electrochemical properties and Al corrosion. <i>Journal of Power Sources</i> , 2013, 237, 104-111.	4.0	35
14	Anion Coordination Interactions in Solvates with the Lithium Salts LiDCTA and LiTDI. <i>Journal of Physical Chemistry C</i> , 2014, 118, 7781-7787.	1.5	25
15	Probing the Mechanical Properties of a Doped $\text{Li}_{7-x}\text{La}_3\text{Zr}_2\text{O}_{12}$ Garnet Thin Electrolyte for Solid-State Batteries. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 24693-24700.	4.0	24
16	The Effects of Constriction Factor and Geometric Tortuosity on Li^+ Ion Transport in Porous Solid-State Li^+ Ion Electrolytes. <i>Advanced Functional Materials</i> , 2020, 30, 1910362.	7.8	22
17	Improved Sulfur Tolerance of SOFCs through Surface Modification of Anodes. <i>ACS Applied Energy Materials</i> , 2018, 1, 1559-1566.	2.5	13
18	Predicting the flexural strength of Li^+ -ion-conducting garnet type oxide for solid-state batteries. <i>Journal of the American Ceramic Society</i> , 2020, 103, 5186-5195.	1.9	13

#	ARTICLE	IF	CITATIONS
19	Thermal Phase Behavior and Electrochemical/Physicochemical Properties of Carbonate and Ester Electrolytes with LiBF ₄ , LiDFOB and LiBOB. ECS Transactions, 2013, 50, 381-387.	0.3	3
20	The Use of Methyl Butyrate-Based Electrolytes with Additives to Enable the Operation of Li-Ion Cells with High Voltage Cathodes over a Wide Temperature Range. ECS Transactions, 2014, 58, 97-107.	0.3	3
21	Dilithium 1,2,5-thiadiazolidine-3,4-dione 1,1-dioxide dihydrate. Acta Crystallographica Section E: Structure Reports Online, 2012, 68, m1228-m1228.	0.2	0
22	3D Microstructure Reconstruction and Characterization of Solid-State Electrolyte with Varying Porosity. Microscopy and Microanalysis, 2018, 24, 814-815.	0.2	0
23	3D Printing Microstructured Li-Garnet Electrolytes for Solid-State Lithium Batteries. ECS Meeting Abstracts, 2016, , .	0.0	0
24	Mechanical Properties of Li ₇ La _{2.75} Ca _{0.25} Zr _{1.75} Nb _{0.25} O ₁₂ Garnet Electrolyte—a Preliminary Study of a Porous Layer Support All-Solid State Battery. ECS Meeting Abstracts, 2017, , .	0.0	0
25	Fully Dense Sintering of Li Garnet Materials for All Solid State Li Ion Batteries. ECS Meeting Abstracts, 2017, , .	0.0	0
26	Effect of Alumina Addition on Li _{6.75} La _{2.75} Ca _{0.25} Zr _{1.5} Nb _{0.5} O ₁₂ Lithium Garnet. ECS Meeting Abstracts, 2017, , .	0.0	0
27	Quasi Solid State Li-S Battery Enabled By a Triple Layer Garnet Framework. ECS Meeting Abstracts, 2017, , .	0.0	0
28	Understanding the Effect of Solid Electrolyte Structure on Properties through 3D-Printing. ECS Meeting Abstracts, 2017, , .	0.0	0
29	Structure-Performance Relations in Multi-Layer Solid-State Li-Ion Electrolytes Using FIB-Tomography. ECS Meeting Abstracts, 2017, , .	0.0	0
30	Enhanced Performance and Safety in Intermediate Temperature Lithium-Sulfur Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
31	(Invited) Temperature-Flexible High Performance Quasi Solid-State Batteries. ECS Meeting Abstracts, 2020, MA2020-02, 959-959.	0.0	0