

Timo Danner

List of Publications by Year in descending order

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Version: 2024-02-01

40
papers

1,158
citations

516710

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501196

28
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41
all docs

41
docs citations

41
times ranked

1387
citing authors

#	ARTICLE	IF	CITATIONS
1	Thick electrodes for Li-ion batteries: A model based analysis. Journal of Power Sources, 2016, 334, 191-201.	7.8	191
2	Influence of Conductive Additives and Binder on the Impedance of Lithium-Ion Battery Electrodes: Effect of Morphology. Journal of the Electrochemical Society, 2020, 167, 013546.	2.9	105
3	High Capacity Garnet-Based All-Solid-State Lithium Batteries: Fabrication and 3D-Microstructure Resolved Modeling. ACS Applied Materials & Interfaces, 2018, 10, 22329-22339.	8.0	91
4	Manufacturing Process for Improved Ultra-Thick Cathodes in High-Energy Lithium-Ion Batteries. Energy Technology, 2020, 8, 1900167.	3.8	89
5	A Flexible Framework for Modeling Multiple Solid, Liquid and Gaseous Phases in Batteries and Fuel Cells. Journal of the Electrochemical Society, 2012, 159, A1528-A1542.	2.9	78
6	Analysis of Interfacial Effects in All-Solid-State Batteries with Thiophosphate Solid Electrolytes. ACS Applied Materials & Interfaces, 2020, 12, 9277-9291.	8.0	73
7	Precipitation in aqueous lithium-oxygen batteries: a model-based analysis. Energy and Environmental Science, 2013, 6, 1299.	30.8	63
8	Characterization of gas diffusion electrodes for metal-air batteries. Journal of Power Sources, 2016, 324, 646-656.	7.8	53
9	An Electrochemical Model of Lithium Plating and Stripping in Lithium Ion Batteries. ACS Applied Energy Materials, 2020, 3, 8519-8531.	5.1	48
10	Modeling of nano-structured cathodes for improved lithium-sulfur batteries. Electrochimica Acta, 2015, 184, 124-133.	5.2	47
11	On the influence of nucleation and growth of S ₈ and Li ₂ S in lithium-sulfur batteries. Electrochimica Acta, 2019, 322, 134719.	5.2	40
12	On the Additive Microstructure in Composite Cathodes and Alumina-Coated Carbon Microwires for Improved All-Solid-State Batteries. Chemistry of Materials, 2021, 33, 1380-1393.	6.7	38
13	Reaction and transport in Ag/Ag ₂ O gas diffusion electrodes of aqueous Li-O ₂ batteries: Experiments and modeling. Journal of Power Sources, 2014, 264, 320-332.	7.8	30
14	Insights into Self-Discharge of Lithium and Magnesium-Sulfur Batteries. ACS Applied Energy Materials, 2020, 3, 8457-8474.	5.1	26
15	Influence of the Electrolyte Salt Concentration on the Rate Capability of Ultra-Thick NCM 622 Electrodes. Batteries and Supercaps, 2020, 3, 1172-1182.	4.7	25
16	Understanding Electrolyte Filling of Lithium-Ion Battery Electrodes on the Pore Scale Using the Lattice Boltzmann Method. Batteries and Supercaps, 2022, 5, .	4.7	21
17	Screening and further investigations on promising bi-functional catalysts for metal-air batteries with an aqueous alkaline electrolyte. Journal of Applied Electrochemistry, 2014, 44, 73-85.	2.9	17
18	Beneficial Effects of Three-Dimensional Structured Electrodes for the Fast Charging of Lithium-Ion Batteries. ACS Applied Energy Materials, 2021, 4, 13847-13859.	5.1	17

#	ARTICLE	IF	CITATIONS
19	Analysis of microstructural effects in multi-layer lithium-ion battery cathodes. Materials Characterization, 2019, 151, 166-174.	4.4	16
20	Modeling of Ion Agglomeration in Magnesium Electrolytes and its Impacts on Battery Performance. ChemSusChem, 2020, 13, 3599-3604.	6.8	15
21	Modeling of Electron Transfer Kinetics in Magnesium Electrolytes: Influence of the Solvent on the Battery Performance. ChemSusChem, 2021, 14, 4820-4835.	6.8	15
22	Effect of the 3D Structure and Grain Boundaries on Lithium Transport in Garnet Solid Electrolytes. ACS Applied Energy Materials, 2021, 4, 4786-4804.	5.1	13
23	Degradation Effects in Metal-Sulfur Batteries. ACS Applied Energy Materials, 2021, 4, 2365-2376.	5.1	12
24	Mechanistic Details of the Spontaneous Intercalation of Li Metal into Graphite Electrodes. Journal of the Electrochemical Society, 2020, 167, 140546.	2.9	12
25	Elucidating the Role of Microstructure in Thiophosphate Electrolytes – a Combined Experimental and Theoretical Study of Li_3PS_4 . Advanced Science, 2022, 9, e2105234.	11.2	9
26	Grand canonical Monte Carlo simulations of vapor-liquid equilibria using a bias potential from an analytic equation of state. Journal of Chemical Physics, 2013, 138, 234106.	3.0	8
27	Microstructure and Theory-Based Modeling and Simulation of Batteries and Fuel Cells. Chemie-Ingenieur-Technik, 2019, 91, 758-768.	0.8	4
28	Strategies to Improve Energy and Power Density of Li-Ion Batteries By Virtual Electrode Design. ECS Meeting Abstracts, 2019, MA2019-04, 186-186.	0.0	2
29	Investigating Grain Boundary Contributions in Polycrystalline Solid Electrolytes. ECS Meeting Abstracts, 2021, MA2021-01, 441-441.	0.0	0
30	Investigation of Li Metal Plating and Dissolution on Graphite Electrodes. ECS Meeting Abstracts, 2021, MA2021-01, 294-294.	0.0	0
31	Investigation of Lithium Transport in 3D Porous Solid-State Li-Ion Electrolytes. ECS Meeting Abstracts, 2021, MA2021-01, 321-321.	0.0	0
32	First Steps Towards a Continuum Model of Mg-S Batteries. ECS Meeting Abstracts, 2017, , .	0.0	0
33	Insights on the Operation of Metal-Sulfur Batteries: A Modeling Perspective. ECS Meeting Abstracts, 2017, , .	0.0	0
34	Virtual Design of Thick Electrodes for Li-Ion Batteries. ECS Meeting Abstracts, 2017, , .	0.0	0
35	Investigating the Grain Boundary Transport and Resulting Effective Bulk Properties for Polycrystalline Solid Electrolytes. ECS Meeting Abstracts, 2019, , .	0.0	0
36	Application and Comparison of Different Structuring Concepts for Ultra-Thick NMC 622 Cathodes in High Energy Lithium Ion Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0

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37	Modeling of Electron-Transfer Kinetics in Magnesium Electrolytes: Influence of the Solvent on the Battery Performance. ECS Meeting Abstracts, 2021, MA2021-02, 161-161.	0.0	0
38	Optimizing the Microstructure of Composite Cathodes in Garnet-Based All Solid-State Batteries By Continuum Modeling and Simulation. ECS Meeting Abstracts, 2021, MA2021-02, 305-305.	0.0	0
39	The Role of Secondary Particle Information in Microstructure-Resolved Simulations. ECS Meeting Abstracts, 2021, MA2021-02, 420-420.	0.0	0
40	Effect of a Heterogeneous Distribution of the Conductive Additives and Binder Domain on the Impedances of Lithium-Ion Battery Electrodes. ECS Meeting Abstracts, 2022, MA2022-01, 266-266.	0.0	0