Felix H Richter

List of Publications by Year
in descending order

27 papers	3,192 citations	304743 22 h-index	580821 25 g-index
27 all docs	27 docs citations	27 times ranked	2768 citing authors

#	Article	IF	Citations
1	Benchmarking the performance of all-solid-state lithium batteries. Nature Energy, 2020, 5, 259-270.	39.5	662
2	Physicochemical Concepts of the Lithium Metal Anode in Solid-State Batteries. Chemical Reviews, 2020, 120, 7745-7794.	47.7	468
3	Lithium-Metal Growth Kinetics on LLZO Garnet-Type Solid Electrolytes. Joule, 2019, 3, 2030-2049.	24.0	292
4	Hybrid electrolytes with 3D bicontinuous ordered ceramic and polymer microchannels for all-solid-state batteries. Energy and Environmental Science, 2018, 11, 185-201.	30.8	252
5	Polycrystalline and Single Crystalline NCM Cathode Materialsâ€"Quantifying Particle Cracking, Active Surface Area, and Lithium Diffusion. Advanced Energy Materials, 2021, 11, 2003400.	19.5	237
6	Influence of Carbon Additives on the Decomposition Pathways in Cathodes of Lithium Thiophosphate-Based All-Solid-State Batteries. Chemistry of Materials, 2020, 32, 6123-6136.	6.7	126
7	From Liquid- to Solid-State Batteries: Ion Transfer Kinetics of Heteroionic Interfaces. Electrochemical Energy Reviews, 2020, 3, 221-238.	25.5	117
8	Interphase Formation of PEO₂₀:LiTFSIâ€"Li₆PS₅Cl Composite Electrolytes with Lithium Metal. ACS Applied Materials & Interfaces, 2020, 12, 11713-11723.	8.0	114
9	Editorsâ€™ Choiceâ€"Quantifying the Impact of Charge Transport Bottlenecks in Composite Cathodes of All-Solid-State Batteries. Journal of the Electrochemical Society, 2021, 168, 040537.	2.9	97
10	Properties of the Interphase Formed between Argyrodite-Type Li₆PS₅Cl and Polymer-Based PEO₁₀:LiTFSI. ACS Applied Materials & Interfaces, 2019, 11, 42186-42196.	8.0	95
11	Interfacial challenges for all-solid-state batteries based on sulfide solid electrolytes. Journal of Materiomics, 2021, 7, 209-218.	5.7	82
12	The Interface between Li6.5La3Zr1.5Ta0.5O12 and Liquid Electrolyte. Joule, 2020, 4, 101-108.	24.0	81
13	Li⁺-Ion Dynamics in Î²-Li₃PS₄ Observed by NMR: Local Hopping and Long-Range Transport. Journal of Physical Chemistry C, 2018, 122, 15954-15965.	3.1	76
14	Analysis of Interfacial Effects in All-Solid-State Batteries with Thiophosphate Solid Electrolytes. ACS Applied Materials & Interfaces, 2020, 12, 9277-9291.	8.0	73
15	Influence of Crystallinity of Lithium Thiophosphate Solid Electrolytes on the Performance of Solidâ€State Batteries. Advanced Energy Materials, 2021, 11, 2100654.	19.5	64
16	Amorphous versus Crystalline Li₃PS₄: Local Structural Changes during Synthesis and Li Ion Mobility. Journal of Physical Chemistry C, 2019, 123, 10280-10290.	3.1	62
17	Lithium Argyrodite as Solid Electrolyte and Cathode Precursor for Solidâ€State Batteries with Long Cycle Life. Advanced Energy Materials, 2021, 11, 2101370.	19.5	56
18	The role of polymers in lithium solid-state batteries with inorganic solid electrolytes. Journal of Materials Chemistry A, 2021, 9, 18701-18732.	10.3	47

#	Article	IF	Citations
19	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
20	Synthesis and Postprocessing of Single-Crystalline LiNi_{0.8}Co_{0.15}Al_{0.05}O₂ for Solid-State Lithium-Ion Batteries with High Capacity and Long Cycling Stability. Chemistry of Materials, 2021, 33, 2624-2634.	6.7	38
21	Macroscopic Displacement Reaction of Copper Sulfide in Lithium Solidâ€State Batteries. Advanced Energy Materials, 2020, 10, 2002394.	19.5	37
22	Working Principle of an Ionic Liquid Interlayer During Pressureless Lithium Stripping on Li_{6.25}Al_{0.25}La₃Zr₂O₁₂ (LLZO) Garnetâ€Type Solid Electrolyte. Batteries and Supercaps, 2021, 4, 1145-1155.	4.7	23
23	Editorsâ€™ Choiceâ€”Quantification of the Impact of Chemo-Mechanical Degradation on the Performance and Cycling Stability of NCM-Based Cathodes in Solid-State Li-Ion Batteries. Journal of the Electrochemical Society, 2021, 168, 070546.	2.9	22
24	Increasing the Pressureâ€Free Stripping Capacity of the Lithium Metal Anode in Solidâ€Stateâ€Batteries by Carbon Nanotubes. Advanced Energy Materials, 2022, 12, .	19.5	21
25	Instability of the Li₇SiPS₈ Solid Electrolyte at the Lithium Metal Anode and Interphase Formation. Chemistry of Materials, 2022, 34, 3659-3669.	6.7	12
26	Sodium All-Solid-State Batteries and the Electrolyte Question. ECS Meeting Abstracts, 2022, MA2022-01, 99-99.	0.0	0
27	Analysis of the Interphase Formation of Thiophosphate Solid Electrolytes and the Lithium Metal Anode in Solid-State Batteries. ECS Meeting Abstracts, 2022, MA2022-01, 208-208.	0.0	0