Xiang-Xin Guo

List of Publications by Year
in descending order

45 papers	4,413 citations	159585 30 h-index	243625 44 g-index
46 all docs	46 docs citations	46 times ranked	3102 citing authors

#	Article	IF	Citations
1	Rational Design of Hierarchical â€œCeramicâ€inâ€Polymerâ€•and â€œPolymerâ€inâ€Ceramicâ€•Electrolytes for Dendriteâ€Free Solidâ€State Batteries. Advanced Energy Materials, 2019, 9, 1804004.	19.5	422
2	Solid Garnet Batteries. Joule, 2019, 3, 1190-1199.	24.0	352
3	Drawing a Soft Interface: An Effective Interfacial Modification Strategy for Garnet-Type Solid-State Li Batteries. ACS Energy Letters, 2018, 3, 1212-1218.	17.4	321
4	In-situ formed Li2CO3-free garnet/Li interface by rapid acid treatment for dendrite-free solid-state batteries. Nano Energy, 2019, 61, 119-125.	16.0	281
5	Design of a mixed conductive garnet/Li interface for dendrite-free solid lithium metal batteries. Energy and Environmental Science, 2020, 13, 127-134.	30.8	269
6	Anion-immobilized polymer electrolyte achieved by cationic metal-organic framework filler for dendrite-free solid-state batteries. Energy Storage Materials, 2019, 18, 59-67.	18.0	237
7	Defectâ€Rich Nitrogen Doped Co₃O₄/C Porous Nanocubes Enable Highâ€Efficiency Bifunctional Oxygen Electrocatalysis. Advanced Functional Materials, 2019, 29, 1902875.	14.9	233
8	All solid state lithium batteries based on lamellar garnet-type ceramic electrolytes. Journal of Power Sources, 2015, 300, 24-28.	7.8	204
9	Formation of self-limited, stable and conductive interfaces between garnet electrolytes and lithium anodes for reversible lithium cycling in solid-state batteries. Journal of Materials Chemistry A, 2018, 6, 11463-11470.	10.3	186
10	Li₂CO₃: A Critical Issue for Developing Solid Garnet Batteries. ACS Energy Letters, 2020, 5, 252-262.	17.4	177
11	Densification and ionic-conduction improvement of lithium garnet solid electrolytes by flowing oxygen sintering. Journal of Power Sources, 2014, 248, 642-646.	7.8	175
12	In Situ Formed Shields Enabling Li₂CO₃-Free Solid Electrolytes: A New Route to Uncover the Intrinsic Lithiophilicity of Garnet Electrolytes for Dendrite-Free Li-Metal Batteries. ACS Applied Materials & Interfaces, 2019, 11, 898-905.	8.0	147
13	A flexible electron-blocking interfacial shield for dendrite-free solid lithium metal batteries. Nature Communications, 2021, 12, 176.	12.8	136
14	An efficient multi-doping strategy to enhance Li-ion conductivity in the garnet-type solid electrolyte Li₇La₃Zr₂O₁₂. Journal of Materials Chemistry A, 2019, 7, 8589-8601.	10.3	124
15	Superionic Conductors via Bulk Interfacial Conduction. Journal of the American Chemical Society, 2020, 142, 18035-18041.	13.7	101
16	Comprehensive Investigation into Garnet Electrolytes Toward Application-Oriented Solid Lithium Batteries. Electrochemical Energy Reviews, 2020, 3, 656-689.	25.5	99
17	Dynamics of the Garnet/Li Interface for Dendrite-Free Solid-State Batteries. ACS Energy Letters, 2020, 5, 2156-2164.	17.4	76
18	Dual-interface reinforced flexible solid garnet batteries enabled by in-situ solidified gel polymer electrolytes. Nano Energy, 2021, 90, 106498.	16.0	74

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19	A Multilayer Ceramic Electrolyte for Allâ€Solidâ€State Li Batteries. Angewandte Chemie - International Edition, 2021, 60, 3781-3790.	13.8	71
20	Nanocomposite intermediate layers formed by conversion reaction of SnO2 for Li/garnet/Li cycle stability. Journal of Power Sources, 2019, 420, 15-21.	7.8	61
21	A Highâ€Performance Carbonateâ€Free Lithium | Garnet Interface Enabled by a Trace Amount of Sodium. Advanced Materials, 2020, 32, e2000575.	21.0	58
22	Rational Design of Mixed Electronicâ€Ionic Conducting Tiâ€Doping Li₇La₃Zr₂O₁₂ for Lithium Dendrites Suppression. Advanced Functional Materials, 2021, 31, 2001918.	14.9	57
23	Sustainable Interfaces between Si Anodes and Garnet Electrolytes for Room-Temperature Solid-State Batteries. ACS Applied Materials & Interfaces, 2018, 10, 2185-2190.	8.0	54
24	Solid Polymer Electrolytes with Flexible Framework of SiO2 Nanofibers for Highly Safe Solid Lithium Batteries. Polymers, 2020, 12, 1324.	4.5	54
25	Cycle stability of lithium/garnet/lithium cells with different intermediate layers. Rare Metals, 2018, 37, 473-479.	7.1	48
26	Polydopamine-Coated Garnet Particles Homogeneously Distributed in Poly(propylene carbonate) for the Conductive and Stable Membrane Electrolytes of Solid Lithium Batteries. ACS Applied Materials & Interfaces, 2020, 12, 46162-46169.	8.0	41
27	Surface coating of LiMn₂O₄ cathodes with garnet electrolytes for improving cycling stability of solid lithium batteries. Journal of Materials Chemistry A, 2020, 8, 4252-4256.	10.3	40
28	Lithium Expulsion from the Solid-State Electrolyte Li_{6.4}La₃Zr_{1.4}Ta_{0.6}O₁₂ by Controlled Electron Injection in a SEM. ACS Applied Materials & Interfaces, 2018, 10, 5978-5983.	8.0	38
29	Polydopamine Coated Lithium Lanthanum Titanate in Bilayer Membrane Electrolytes for Solid Lithium Batteries. ACS Applied Materials & Interfaces, 2020, 12, 46231-46238.	8.0	38
30	In situ Observation of Li Depositionâ€Induced Cracking in Garnet Solid Electrolytes. Energy and Environmental Materials, 2022, 5, 524-532.	12.8	36
31	Evaluating Interfacial Stability in Solid-State Pouch Cells via Ultrasonic Imaging. ACS Energy Letters, 2022, 7, 650-658.	17.4	32
32	The Ab Initio Calculations on the Areal Specific Resistance of Liâ€Metal/Li₇La₃Zr₂O₁₂ Interphase. Advanced Theory and Simulations, 2019, 2, 1900028.	2.8	25
33	Matchmaker of Marriage between a Li Metal Anode and NASICON-Structured Solid-State Electrolyte: Plastic Crystal Electrolyte and Three-Dimensional Host Structure. ACS Applied Materials & Interfaces, 2020, 12, 44754-44761.	8.0	22
34	Clear Representation of Surface Pathway Reactions at Ag Nanowire Cathodes in All-Solid Liâ€“O₂ Batteries. ACS Applied Materials & Interfaces, 2021, 13, 39157-39164.	8.0	17
35	Ionicâ€“electronic dual-conductive polymer modified LiCoO₂ cathodes for solid lithium batteries. Chemical Communications, 2022, 58, 8638-8641.	4.1	16
36	Ultrastable Anode/Electrolyte Interface in Solid-State Lithium-Metal Batteries Using LiCu_x Nanowire Network Host. ACS Applied Materials & Interfaces, 2021, 13, 42822-42831.	8.0	14

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37	A Multilayer Ceramic Electrolyte for Allâ€Solidâ€State Li Batteries. Angewandte Chemie, 2021, 133, 3825-3834.	2.0	13
38	Deciphering the Enigma of Li₂CO₃ Oxidation Using a Solid-State Liâ€“Air Battery Configuration. ACS Applied Materials & Interfaces, 2021, 13, 14321-14326.	8.0	13
39	LiNi_{0.6}Co_{0.2}Mn_{0.2}O₂ Cathodes Coated with Dual-Conductive Polymers for High-Rate and Long-Life Solid-State Lithium Batteries. ACS Applied Materials & Interfaces, 2022, 14, 24929-24937.	8.0	13
40	Different Behaviors of Metal Penetration in Na and Li Solid Electrolytes. ACS Applied Materials & Interfaces, 2020, 12, 53781-53787.	8.0	12
41	Combination of Organic and Inorganic Electrolytes for Composite Membranes Toward Applicable Solid Lithium Batteries. Chemical Research in Chinese Universities, 2021, 37, 246-253.	2.6	8
42	Comparative Study of Stability against Moisture for Solid Garnet Electrolytes with Different Dopants. Energies, 2022, 15, 3206.	3.1	8
43	Insight into synergetic effect of bulk doping and boundary engineering on conductivity of NASICON electrolytes for solid-state Na batteries. Applied Physics Letters, 2022, 121, 033901.	3.3	7
44	Preparation and Performance Optimization of Two-Component Waterborne Polyurethane Locomotive Coating. Coatings, 2020, 10, 4.	2.6	3
45	Electrochemical Behavior of NH4F-Pretreated Li1.25Ni0.20Fe0.13Co0.33Mn0.33O2 Cathodes for Lithium-ion Batteries. Applied Sciences (Switzerland), 2020, 10, 1021.	2.5	0