Yizhou Zhu

List of Publications by Year
in descending order

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27 papers	7,224 citations	279487 23 h-index	525886 27 g-index
27 all docs	27 docs citations	27 times ranked	6016 citing authors

#	Article	IF	Citations
1	Origin of Outstanding Stability in the Lithium Solid Electrolyte Materials: Insights from Thermodynamic Analyses Based on First-Principles Calculations. ACS Applied Materials & Interfaces, 2015, 7, 23685-23693.	4.0	1,314
2	Electrochemical Stability of Li₁₀GeP₂S₁₂ and Li₇La₃Zr₂O₁₂ Solid Electrolytes. Advanced Energy Materials, 2016, 6, 1501590.	10.2	781
3	First principles study on electrochemical and chemical stability of solid electrolyteâ€“electrode interfaces in all-solid-state Li-ion batteries. Journal of Materials Chemistry A, 2016, 4, 3253-3266.	5.2	748
4	Toward garnet electrolyteâ€“based Li metal batteries: An ultrathin, highly effective, artificial solid-state electrolyte/metallic Li interface. Science Advances, 2017, 3, e1601659.	4.7	647
5	Origin of fast ion diffusion in super-ionic conductors. Nature Communications, 2017, 8, 15893.	5.8	570
6	Transition from Superlithiophobicity to Superlithiophilicity of Garnet Solid-State Electrolyte. Journal of the American Chemical Society, 2016, 138, 12258-12262.	6.6	548
7	Reducing Interfacial Resistance between Garnetâ€Structured Solidâ€State Electrolyte and Liâ€Metal Anode by a Germanium Layer. Advanced Materials, 2017, 29, 1606042.	11.1	512
8	Design Strategies, Practical Considerations, and New Solution Processes of Sulfide Solid Electrolytes for Allâ€Solidâ€State Batteries. Advanced Energy Materials, 2018, 8, 1800035.	10.2	410
9	Computation-Accelerated Design of Materials and Interfaces for All-Solid-State Lithium-Ion Batteries. Joule, 2018, 2, 2016-2046.	11.7	266
10	Statistical variances of diffusional properties from ab initio molecular dynamics simulations. Npj Computational Materials, 2018, 4, .	3.5	240
11	Strategies Based on Nitride Materials Chemistry to Stabilize Li Metal Anode. Advanced Science, 2017, 4, 1600517.	5.6	185
12	Visualizing non-equilibrium lithiation of spinel oxide via in situ transmission electron microscopy. Nature Communications, 2016, 7, 11441.	5.8	162
13	High energy-density and reversibility of iron fluoride cathode enabled via an intercalation-extrusion reaction. Nature Communications, 2018, 9, 2324.	5.8	136
14	Sodiation Kinetics of Metal Oxide Conversion Electrodes: A Comparative Study with Lithiation. Nano Letters, 2015, 15, 5755-5763.	4.5	122
15	Materials Design Principles for Airâ€Stable Lithium/Sodium Solid Electrolytes. Angewandte Chemie - International Edition, 2020, 59, 17472-17476.	7.2	120
16	Confined Fe₂VO₄â€‰Nitrogenâ€Doped Carbon Nanowires with Internal Void Space for Highâ€Rate and Ultrastable Potassiumâ€Ion Storage. Advanced Energy Materials, 2019, 9, 1902674.	10.2	81
17	Na₃Zr₂Si₂PO₁₂: A Stable Na⁺-Ion Solid Electrolyte for Solid-State Batteries. ACS Applied Energy Materials, 2020, 3, 7427-7437.	2.5	77
18	Stabilizing the Garnet Solid-Electrolyte/Polysulfide Interface in Liâ€“S Batteries. Chemistry of Materials, 2017, 29, 8037-8041.	3.2	73

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19	Kinetic Phase Evolution of Spinel Cobalt Oxide during Lithiation. ACS Nano, 2016, 10, 9577-9585.	7.3	54
20	Modulating the Surface Ligand Orientation for Stabilized Anionic Redox in Liâ€Rich Oxide Cathodes. Advanced Energy Materials, 2021, 11, 2003479.	10.2	45
21	Elucidating and Mitigating Highâ€Voltage Degradation Cascades in Cobaltâ€Free LiNiO₂ Lithiumâ€Ion Battery Cathodes. Advanced Materials, 2022, 34, e2106402.	11.1	44
22	Accelerated Discovery and Design of Ultralow Lattice Thermal Conductivity Materials Using Chemical Bonding Principles. Advanced Functional Materials, 2022, 32, .	7.8	34
23	First-Principles Study of Oxyhydride Hâ€“ Ion Conductors: Toward Facile Anion Conduction in Oxide-Based Materials. ACS Applied Energy Materials, 2018, 1, 1626-1634.	2.5	26
24	Materials Design Principles for Airâ€Stable Lithium/Sodium Solid Electrolytes. Angewandte Chemie, 2020, 132, 17625-17629.	1.6	13
25	First principles hybrid functional study of small polarons in doped SrCeO3 perovskite: towards computation design of materials with tailored polaron. Ionics, 2018, 24, 1139-1151.	1.2	12
26	n-Doping of Quantum Dots by Lithium Ion Intercalation. ACS Applied Materials & Interfaces, 2020, 12, 36523-36529.	4.0	3
27	Elucidating and Mitigating Highâ€Voltage Degradation Cascades in Cobaltâ€Free LiNiO₂ Lithiumâ€Ion Battery Cathodes (Adv. Mater. 3/2022). Advanced Materials, 2022, 34, .	11.1	1