Yizhou Zhu

List of Publications by Year
in descending order

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	Elucidating and Mitigating Highâ€Voltage Degradation Cascades in Cobaltâ€Free LiNiO₂ Lithiumâ€Ion Battery Cathodes. Advanced Materials, 2022, 34, e2106402.	11.1	44
2	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
3	Accelerated Discovery and Design of Ultralow Lattice Thermal Conductivity Materials Using Chemical Bonding Principles. Advanced Functional Materials, 2022, 32, .	7.8	34
4	Modulating the Surface Ligand Orientation for Stabilized Anionic Redox in Liâ€Rich Oxide Cathodes. Advanced Energy Materials, 2021, 11, 2003479.	10.2	45
5	n-Doping of Quantum Dots by Lithium Ion Intercalation. ACS Applied Materials & Interfaces, 2020, 12, 36523-36529.	4.0	3
6	Materials Design Principles for Airâ€Stable Lithium/Sodium Solid Electrolytes. Angewandte Chemie, 2020, 132, 17625-17629.	1.6	13
7	Na₃Zr₂Si₂PO₁₂: A Stable Na⁺-Ion Solid Electrolyte for Solid-State Batteries. ACS Applied Energy Materials, 2020, 3, 7427-7437.	2.5	77
8	Materials Design Principles for Airâ€Stable Lithium/Sodium Solid Electrolytes. Angewandte Chemie - International Edition, 2020, 59, 17472-17476.	7.2	120
9	Confined Fe₂VO₄âŠ‚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
10	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
11	Statistical variances of diffusional properties from ab initio molecular dynamics simulations. Npj Computational Materials, 2018, 4, .	3.5	240
12	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
13	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
14	Computation-Accelerated Design of Materials and Interfaces for All-Solid-State Lithium-Ion Batteries. Joule, 2018, 2, 2016-2046.	11.7	266
15	High energy-density and reversibility of iron fluoride cathode enabled via an intercalation-extrusion reaction. Nature Communications, 2018, 9, 2324.	5.8	136
16	Strategies Based on Nitride Materials Chemistry to Stabilize Li Metal Anode. Advanced Science, 2017, 4, 1600517.	5.6	185
17	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
18	Origin of fast ion diffusion in super-ionic conductors. Nature Communications, 2017, 8, 15893.	5.8	570

#	Article	IF	Citations
19	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
20	Stabilizing the Garnet Solid-Electrolyte/Polysulfide Interface in Liâ€“S Batteries. Chemistry of Materials, 2017, 29, 8037-8041.	3.2	73
21	Electrochemical Stability of Li₁₀GeP₂S₁₂ and Li₇La₃Zr₂O₁₂ Solid Electrolytes. Advanced Energy Materials, 2016, 6, 1501590.	10.2	781
22	Visualizing non-equilibrium lithiation of spinel oxide via in situ transmission electron microscopy. Nature Communications, 2016, 7, 11441.	5.8	162
23	Transition from Superlithiophobicity to Superlithiophilicity of Garnet Solid-State Electrolyte. Journal of the American Chemical Society, 2016, 138, 12258-12262.	6.6	548
24	Kinetic Phase Evolution of Spinel Cobalt Oxide during Lithiation. ACS Nano, 2016, 10, 9577-9585.	7.3	54
25	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
26	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
27	Sodiation Kinetics of Metal Oxide Conversion Electrodes: A Comparative Study with Lithiation. Nano Letters, 2015, 15, 5755-5763.	4.5	122