Xiangsi Liu

List of Publications by Year
in descending order

32 papers	1,884 citations	279798 23 h-index	434195 31 g-index
32 all docs	32 docs citations	32 times ranked	1545 citing authors

#	Article	IF	Citations
1	Li-rich cathodes for rechargeable Li-based batteries: reaction mechanisms and advanced characterization techniques. Energy and Environmental Science, 2020, 13, 4450-4497.	30.8	219
2	The stability of P2-layered sodium transition metal oxides in ambient atmospheres. Nature Communications, 2020, 11, 3544.	12.8	204
3	P2â€Na_{0.67}Al_{<i>x</i>}Mn_{1âˆ'<i>x</i>}O₂: Costâ€Effective, Stable and Highâ€Rate Sodium Electrodes by Suppressing Phase Transitions and Enhancing Sodium Cation Mobility. Angewandte Chemie - International Edition, 2019, 58, 18086-18095.	13.8	127
4	Electrochemoâ€Mechanical Effects on Structural Integrity of Niâ€Rich Cathodes with Different Microstructures in All Solidâ€State Batteries. Advanced Energy Materials, 2021, 11, 2003583.	19.5	112
5	Correlation between long range and local structural changes in Ni-rich layered materials during charge and discharge process. Journal of Power Sources, 2019, 412, 336-343.	7.8	109
6	Engineering Na+-layer spacings to stabilize Mn-based layered cathodes for sodium-ion batteries. Nature Communications, 2021, 12, 4903.	12.8	109
7	Enabling Fast Na⁺ Transfer Kinetics in the Wholeâ€Voltageâ€Region of Hardâ€Carbon Anodes for Ultrahighâ€Rate Sodium Storage. Advanced Materials, 2022, 34, e2109282.	21.0	108
8	Highly-stable P2â€"Na0.67MnO2 electrode enabled by lattice tailoring and surface engineering. Energy Storage Materials, 2020, 26, 503-512.	18.0	101
9	Visualizing the growth process of sodium microstructures in sodium batteries by in-situ 23Na MRI and NMR spectroscopy. Nature Nanotechnology, 2020, 15, 883-890.	31.5	95
10	Quantitatively analyzing the failure processes of rechargeable Li metal batteries. Science Advances, 2021, 7, eabj3423.	10.3	84
11	Unraveling (electro)-chemical stability and interfacial reactions of Li10SnP2S12 in all-solid-state Li batteries. Nano Energy, 2020, 67, 104252.	16.0	59
12	Sieving carbons promise practical anodes with extensible low-potential plateaus for sodium batteries. National Science Review, 2022, 9, .	9.5	55
13	Al and Fe-containing Mn-based layered cathode with controlled vacancies for high-rate sodium ion batteries. Nano Energy, 2020, 76, 104997.	16.0	54
14	Capacity fading induced by phase conversion hysteresis within alloying phosphorus anode. Nano Energy, 2019, 58, 560-567.	16.0	43
15	Fluorination effect for stabilizing cationic and anionic redox activities in cation-disordered cathode materials. Energy Storage Materials, 2020, 32, 234-243.	18.0	42
16	Structure-Performance Relationship of Zn²⁺ Substitution in P2â€"Na_{0.66}Ni_{0.33}Mn_{0.67}O₂ with Different Ni/Mn Ratios for High-Energy Sodium-Ion Batteries. ACS Applied Energy Materials, 2019, 2, 4914-4924.	5.1	39
17	Solidâ€State NMR and MRI Spectroscopy for Li/Na Batteries: Materials, Interface, and In Situ Characterization. Advanced Materials, 2021, 33, e2005878.	21.0	35
18	Constructing a High-Energy and Durable Single-Crystal NCM811 Cathode for All-Solid-State Batteries by a Surface Engineering Strategy. ACS Applied Materials & Interfaces, 2021, 13, 41669-41679.	8.0	35

#	Article	IF	Citations
19	Insights into the lithiation mechanism of CF_x by a joint high-resolution ¹⁹F NMR, <i>in situ</i> TEM and ⁷Li NMR approach. Journal of Materials Chemistry A, 2019, 7, 19793-19799.	10.3	33
20	Elucidating and Mitigating the Degradation of Cationicâ€“Anionic Redox Processes in Li_{1.2}Mn_{0.4}Ti_{0.4}O₂ Cation-Disordered Cathode Materials. ACS Applied Materials & Interfaces, 2019, 11, 45674-45682.	8.0	31
21	High-Efficiency Lithium Metal Anode Enabled by a Concentrated/Fluorinated Ester Electrolyte. ACS Applied Materials & Interfaces, 2020, 12, 27794-27802.	8.0	31
22	Exploring the high-voltage Mg²⁺/Na⁺ co-intercalation reaction of Na₃VCr(PO₄)₃ in Mg-ion batteries. Journal of Materials Chemistry A, 2019, 7, 18081-18091.	10.3	29
23	3D Lithiophilic â€œHairyâ€•Si Nanowire Arrays @ Carbon Scaffold Favor a Flexible and Stable Lithium Composite Anode. ACS Applied Materials & Interfaces, 2019, 11, 44325-44332.	8.0	25
24	O3-Type NaCrO₂ as a Superior Cathode Material for Sodium/Potassium-Ion Batteries Ensured by High Structural Reversibility. ACS Applied Materials & Interfaces, 2021, 13, 22635-22645.	8.0	20
25	Size-Dependent Chemomechanical Failure of Sulfide Solid Electrolyte Particles during Electrochemical Reaction with Lithium. Nano Letters, 2022, 22, 411-418.	9.1	20
26	Unravelling the Fast Alkaliâ€•Ion Dynamics in Paramagnetic Battery Materials Combined with NMR and Deepâ€•Potential Molecular Dynamics Simulation. Angewandte Chemie - International Edition, 2021, 60, 12547-12553.	13.8	16
27	Insights of the Electrochemical Reversibility of P2-Type Sodium Manganese Oxide Cathodes via Modulation of Transition Metal Vacancies. ACS Applied Materials & Interfaces, 2021, 13, 38305-38314.	8.0	13
28	Exploring hybrid Mg2+/H+ reactions of C@MgMnSiO4 with boosted voltage in magnesium-ion batteries. Electrochimica Acta, 2022, 404, 139738.	5.2	10
29	A machine learning protocol for revealing ion transport mechanisms from dynamic NMR shifts in paramagnetic battery materials. Chemical Science, 2022, 13, 7863-7872.	7.4	10
30	P2â€•Na 0.67 Al x Mn 1â^’ x O 2 : Costâ€•Effective, Stable and Highâ€•Rate Sodium Electrodes by Suppressing Phase Transitions and Enhancing Sodium Cation Mobility. Angewandte Chemie, 2019, 131, 18254-18263.	2.0	9
31	Mitigating the Surface Reconstruction of Ni-Rich Cathode <i>via</i> P2-Type Mn-Rich Oxide Coating for Durable Lithium Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 30398-30409.	8.0	7
32	Unravelling the Fast Alkaliâ€•Ion Dynamics in Paramagnetic Battery Materials Combined with NMR and Deepâ€•Potential Molecular Dynamics Simulation. Angewandte Chemie, 2021, 133, 12655-12661.	2.0	0