Haodong Liu

List of Publications by Year
in descending order

45 papers	4,459 citations	126708 33 h-index	253896 43 g-index
45 all docs	45 docs citations	45 times ranked	4904 citing authors

#	Article	IF	Citations
1	Oxidative Stabilization of Dilute Ether Electrolytes via Anion Modification. ACS Energy Letters, 2022, 7, 675-682.	8.8	15
2	A Fiberâ€Based 3D Lithium Host for Lean Electrolyte Lithium Metal Batteries. Advanced Science, 2022, 9, e2104829.	5.6	15
3	Electrolyte design implications of ion-pairing in low-temperature Li metal batteries. Energy and Environmental Science, 2022, 15, 1647-1658.	15.6	89
4	Isoxazole-Based Electrolytes for Lithium Metal Protection and Lithium-Sulfurized Polyacrylonitrile (SPAN) Battery Operating at Low Temperature. Journal of the Electrochemical Society, 2022, 169, 030513.	1.3	4
5	Solvent selection criteria for temperature-resilient lithiumâ€"sulfur batteries. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	17
6	Designing and Understanding the Superior Potassium Storage Performance of Nitrogen/Phosphorus Coâ€Doped Hollow Porous Bowlâ€Like Carbon Anodes. Advanced Functional Materials, 2021, 31, .	7.8	142
7	Quantifying the reaction mechanisms of a high-capacity CuP₂/C composite anode for potassium ion batteries. Journal of Materials Chemistry A, 2021, 9, 6274-6283.	5.2	19
8	Quantification of the ion transport mechanism in protective polymer coatings on lithium metal anodes. Chemical Science, 2021, 12, 7023-7032.	3.7	7
9	Tailoring electrolyte solvation for Li metal batteries cycled at ultra-low temperature. Nature Energy, 2021, 6, 303-313.	19.8	386
10	Graphite-Based Lithium-Free 3D Hybrid Anodes for High Energy Density All-Solid-State Batteries. ACS Energy Letters, 2021, 6, 1831-1838.	8.8	56
11	Understanding the Roles of the Electrode/Electrolyte Interface for Enabling Stable Liâˆ¥Sulfurized Polyacrylonitrile Batteries. ACS Applied Materials & Interfaces, 2021, 13, 31733-31740.	4.0	25
12	Low-Cost Li||SPAN Batteries Enabled by Sustained Additive Release. ACS Applied Energy Materials, 2021, 4, 6422-6429.	2.5	2
13	Mitigating internal shorting to enhance battery safety with gradient-conductivity cathodes. Journal of Power Sources, 2021, 511, 230412.	4.0	0
14	Communicationâ€"Binder Effects on Cycling Performance of High Areal Capacity SPAN Electrodes. Journal of the Electrochemical Society, 2021, 168, 110504.	1.3	4
15	High performance columnar-like Fe2O3@carbon composite anode via yolk@shell structural design. Journal of Energy Chemistry, 2020, 41, 126-134.	7.1	191
16	Protective coatings for lithium metal anodes: Recent progress and future perspectives. Journal of Power Sources, 2020, 450, 227632.	4.0	104
17	Achieving Fast and Durable Lithium Storage through Amorphous FeP Nanoparticles Encapsulated in Ultrathin 3D P-Doped Porous Carbon Nanosheets. ACS Nano, 2020, 14, 9545-9561.	7.3	250
18	The stability of P2-layered sodium transition metal oxides in ambient atmospheres. Nature Communications, 2020, 11, 3544.	5.8	204

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19	Hierarchical Design of Mn₂P Nanoparticles Embedded in N,P-Codoped Porous Carbon Nanosheets Enables Highly Durable Lithium Storage. ACS Applied Materials & Interfaces, 2020, 12, 36247-36258.	4.0	36
20	A disordered rock salt anode for fast-charging lithium-ion batteries. Nature, 2020, 585, 63-67.	13.7	326
21	Li-rich cathodes for rechargeable Li-based batteries: reaction mechanisms and advanced characterization techniques. Energy and Environmental Science, 2020, 13, 4450-4497.	15.6	219
22	Efficient Direct Recycling of Degraded LiMn₂O₄ Cathodes by One-Step Hydrothermal Relithiation. ACS Applied Materials & Interfaces, 2020, 12, 51546-51554.	4.0	88
23	Draining Over Blocking: Nanoâ€Composite Janus Separators for Mitigating Internal Shorting of Lithium Batteries. Advanced Materials, 2020, 32, e1906836.	11.1	62
24	Thin Solid Electrolyte Layers Enabled by Nanoscopic Polymer Binding. ACS Energy Letters, 2020, 5, 955-961.	8.8	36
25	Polymer grafted on carbon nanotubes as a flexible cathode for aqueous zinc ion batteries. Chemical Communications, 2019, 55, 1647-1650.	2.2	117
26	Elucidating the Limit of Li Insertion into the Spinel Li₄Ti₅O₁₂. , 2019, 1, 96-102.		45
27	Toward a durable solid electrolyte film on the electrodes for Li-ion batteries with high performance. Nano Energy, 2019, 63, 103815.	8.2	60
28	Cathode electrolyte interface enabling stable Liâ€“S batteries. Energy Storage Materials, 2019, 21, 474-480.	9.5	59
29	<i>In situ</i> formed polymer gel electrolytes for lithium batteries with inherent thermal shutdown safety features. Journal of Materials Chemistry A, 2019, 7, 16984-16991.	5.2	46
30	Mixed-conducting interlayer boosting the electrochemical performance of Ni-rich layered oxide cathode materials for lithium ion batteries. Journal of Power Sources, 2019, 421, 91-99.	4.0	101
31	Analysis of Rate-Limiting Factors in Thick Electrodes for Electric Vehicle Applications. Journal of the Electrochemical Society, 2018, 165, A525-A533.	1.3	70
32	Identifying the chemical and structural irreversibility in LiNi_{0.8}Co_{0.15}Al_{0.05}O₂ â€“ a model compound for classical layered intercalation. Journal of Materials Chemistry A, 2018, 6, 4189-4198.	5.2	48
33	A Scalable Synthesis Pathway to Nanoporous Metal Structures. ACS Nano, 2018, 12, 432-440.	7.3	39
34	Structure and Solution Dynamics of Lithium Methyl Carbonate as a Protective Layer For Lithium Metal. ACS Applied Energy Materials, 2018, 1, 1864-1869.	2.5	41
35	Designing solution chemistries for the low-temperature synthesis of sulfide-based solidÂelectrolytes. Journal of Materials Chemistry A, 2018, 6, 7370-7374.	5.2	53
36	Enhancing the electrochemical performance of Li-rich layered oxide Li1.13Ni0.3Mn0.57O2 via WO3 doping and accompanying spontaneous surface phase formation. Journal of Power Sources, 2018, 375, 21-28.	4.0	61

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37	Dendrite Suppression Membranes for Rechargeable Zinc Batteries. ACS Applied Materials & Interfaces, 2018, 10, 38928-38935.	4.0	189
38	Suppressing Lithium Dendrite Growth with a Single-Component Coating. ACS Applied Materials & Interfaces, 2017, 9, 30635-30642.	4.0	38
39	Narrowing the Gap between Theoretical and Practical Capacities in Liâ€ion Layered Oxide Cathode Materials. Advanced Energy Materials, 2017, 7, 1602888.	10.2	455
40	Performance and design considerations for lithium excess layered oxide positive electrode materials for lithium ion batteries. Energy and Environmental Science, 2016, 9, 1931-1954.	15.6	295
41	Identifying the Distribution of Al³⁺ in LiNi_{0.8}Co_{0.15}Al_{0.05}O₂. Chemistry of Materials, 2016, 28, 8170-8180.	3.2	77
42	Durable high-rate capability Na0.44MnO2 cathode material for sodium-ion batteries. Nano Energy, 2016, 27, 602-610.	8.2	126
43	Understanding the Role of NH₄F and Al₂O₃ Surface Co-modification on Lithium-Excess Layered Oxide Li_{1.2}Ni_{0.2}Mn_{0.6}O₂. ACS Applied Materials & Interfaces, 2015, 7, 19189-19200.	4.0	87
44	Effect of Morphology and Manganese Valence on the Voltage Fade and Capacity Retention of Li[Li_{2/12}Ni_{3/12}Mn_{7/12}]O₂. ACS Applied Materials & Interfaces, 2014, 6, 18868-18877.	4.0	76
45	In-situ neutron diffraction study of the xLi2MnO3Â·(1Ââˆ’Âx)LiMO2 (xÂ=Â0,Â0.5; MÂ=ÂNi, Mn, Co) layered oxide compounds during electrochemical cycling. Journal of Power Sources, 2013, 240, 772-778.	4.0	79