Yuzhang Li

List of Publications by Year
in descending order

53 papers	14,944 citations	57758 44 h-index	161849 54 g-index
57 all docs	57 docs citations	57 times ranked	14567 citing authors

#	Article	IF	Citations
1	Selective deposition and stable encapsulation of lithium through heterogeneous seeded growth. Nature Energy, 2016, 1, .	39.5	1,516
2	A phosphoreneâ€"graphene hybrid material as a high-capacity anode for sodium-ion batteries. Nature Nanotechnology, 2015, 10, 980-985.	31.5	1,287
3	Nanoscale Nucleation and Growth of Electrodeposited Lithium Metal. Nano Letters, 2017, 17, 1132-1139.	9.1	1,081
4	Atomic structure of sensitive battery materials and interfaces revealed by cryoâ€"electron microscopy. Science, 2017, 358, 506-510.	12.6	1,039
5	Ionic Conductivity Enhancement of Polymer Electrolytes with Ceramic Nanowire Fillers. Nano Letters, 2015, 15, 2740-2745.	9.1	782
6	Growth of conformal graphene cages on micrometre-sized silicon particles as stable battery anodes. Nature Energy, 2016, 1, .	39.5	609
7	Direct and continuous strain control of catalysts with tunable battery electrode materials. Science, 2016, 354, 1031-1036.	12.6	512
8	Entrapment of Polysulfides by a Blackâ€Phosphorusâ€Modified Separator for Lithiumâ€"Sulfur Batteries. Advanced Materials, 2016, 28, 9797-9803.	21.0	453
9	Nonfilling Carbon Coating of Porous Silicon Micrometer-Sized Particles for High-Performance Lithium Battery Anodes. ACS Nano, 2015, 9, 2540-2547.	14.6	433
10	Surface Fluorination of Reactive Battery Anode Materials for Enhanced Stability. Journal of the American Chemical Society, 2017, 139, 11550-11558.	13.7	398
11	Sulfur-Modulated Tin Sites Enable Highly Selective Electrochemical Reduction of CO2 to Formate. Joule, 2017, 1, 794-805.	24.0	390
12	Air-stable and freestanding lithium alloy/graphene foil as an alternative to lithium metal anodes. Nature Nanotechnology, 2017, 12, 993-999.	31.5	376
13	In Situ Electrochemical Oxidation Tuning of Transition Metal Disulfides to Oxides for Enhanced Water Oxidation. ACS Central Science, 2015, 1, 244-251.	11.3	373
14	Solubility-mediated sustained release enabling nitrate additive in carbonate electrolytes for stable lithium metal anode. Nature Communications, 2018, 9, 3656.	12.8	371
15	Improving cyclability of Li metal batteries at elevated temperatures and its origin revealed by cryo-electron microscopy. Nature Energy, 2019, 4, 664-670.	39.5	336
16	A manganeseâ€"hydrogen battery with potential for grid-scale energy storage. Nature Energy, 2018, 3, 428-435.	39.5	325
17	Correlating Structure and Function of Battery Interphases at Atomic Resolution Using Cryoelectron Microscopy. Joule, 2018, 2, 2167-2177.	24.0	284
18	High-capacity battery cathode prelithiation to offset initial lithium loss. Nature Energy, 2016, 1, .	39.5	265

#	Article	IF	Citations
19	Fast and reversible thermoresponsive polymer switching materials for safer batteries. Nature Energy, 2016, 1, .	39.5	253
20	Ultrahighâ€“current density anodes with interconnected Li metal reservoir through overlithiation of mesoporous AlF ₃ framework. Science Advances, 2017, 3, e1701301.	10.3	199
21	Resolving Nanoscopic and Mesoscopic Heterogeneity of Fluorinated Species in Battery Solid-Electrolyte Interphases by Cryogenic Electron Microscopy. ACS Energy Letters, 2020, 5, 1128-1135.	17.4	199
22	Robust Pinhole-free Li₃N Solid Electrolyte Grown from Molten Lithium. ACS Central Science, 2018, 4, 97-104.	11.3	197
23	Wrinkled Graphene Cages as Hosts for High-Capacity Li Metal Anodes Shown by Cryogenic Electron Microscopy. Nano Letters, 2019, 19, 1326-1335.	9.1	193
24	In Situ Electrochemically Derived Nanoporous Oxides from Transition Metal Dichalcogenides for Active Oxygen Evolution Catalysts. Nano Letters, 2016, 16, 7588-7596.	9.1	186
25	Capturing the swelling of solid-electrolyte interphase in lithium metal batteries. Science, 2022, 375, 66-70.	12.6	183
26	Fast galvanic lithium corrosion involving a Kirkendall-type mechanism. Nature Chemistry, 2019, 11, 382-389.	13.6	180
27	Synergistic enhancement of electrocatalytic CO2 reduction to C2 oxygenates at nitrogen-doped nanodiamonds/Cu interface. Nature Nanotechnology, 2020, 15, 131-137.	31.5	169
28	Design of Red Phosphorus Nanostructured Electrode for Fast-Charging Lithium-Ion Batteries with High Energy Density. Joule, 2019, 3, 1080-1093.	24.0	168
29	Lithium Metal Anode Materials Design: Interphase and Host. Electrochemical Energy Reviews, 2019, 2, 509-517.	25.5	156
30	Engineering stable interfaces for three-dimensional lithium metal anodes. Science Advances, 2018, 4, eaat5168.	10.3	153
31	Tortuosity Effects in Lithium-Metal Host Anodes. Joule, 2020, 4, 938-952.	24.0	150
32	Identifying the Active Surfaces of Electrochemically Tuned LiCoO₂for Oxygen Evolution Reaction. Journal of the American Chemical Society, 2017, 139, 6270-6276.	13.7	143
33	Stabilized Li3N for efficient battery cathode prelithiation. Energy Storage Materials, 2017, 6, 119-124.	18.0	143
34	Evolution of the Solidâ€“Electrolyte Interphase on Carbonaceous Anodes Visualized by Atomic-Resolution Cryogenic Electron Microscopy. Nano Letters, 2019, 19, 5140-5148.	9.1	132
35	Cathode-Electrolyte Interphase in Lithium Batteries Revealed by Cryogenic Electron Microscopy. Matter, 2021, 4, 302-312.	10.0	127
36	Corrosion of lithium metal anodes during calendar ageing and its microscopic origins. Nature Energy, 2021, 6, 487-494.	39.5	124

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37	Shell-Protective Secondary Silicon Nanostructures as Pressure-Resistant High-Volumetric-Capacity Anodes for Lithium-Ion Batteries. Nano Letters, 2018, 18, 7060-7065.	9.1	121
38	Dynamic Structure and Chemistry of the Silicon Solid-Electrolyte Interphase Visualized by Cryogenic Electron Microscopy. Matter, 2019, 1, 1232-1245.	10.0	107
39	Cryo-EM Structures of Atomic Surfaces and Host-Guest Chemistry in Metal-Organic Frameworks. Matter, 2019, 1, 428-438.	10.0	102
40	Unravelling Degradation Mechanisms and Atomic Structure of Organic-Inorganic Halide Perovskites by Cryo-EM. Joule, 2019, 3, 2854-2866.	24.0	99
41	Revealing Nanoscale Passivation and Corrosion Mechanisms of Reactive Battery Materials in Gas Environments. Nano Letters, 2017, 17, 5171-5178.	9.1	88
42	Nanostructural and Electrochemical Evolution of the Solid-Electrolyte Interphase on CuO Nanowires Revealed by Cryogenic-Electron Microscopy and Impedance Spectroscopy. ACS Nano, 2019, 13, 737-744.	14.6	78
43	Opportunities for Cryogenic Electron Microscopy in Materials Science and Nanoscience. ACS Nano, 2020, 14, 9263-9276.	14.6	55
44	Spheres of Graphene and Carbon Nanotubes Embedding Silicon as Mechanically Resilient Anodes for Lithium-Ion Batteries. Nano Letters, 2022, 22, 3054-3061.	9.1	42
45	In situ formation of ionically conductive nanointerphase on Si particles for stable battery anode. Science China Chemistry, 2021, 64, 1417-1425.	8.2	28
46	Perspectives in in situ transmission electron microscopy studies on lithium battery electrodes. Current Opinion in Chemical Engineering, 2016, 12, 37-43.	7.8	26
47	Catalyst: How Cryo-EM Shapes the Development of Next-Generation Batteries. CheM, 2018, 4, 2250-2252.	11.7	24
48	Designing a Nanoscale Three-phase Electrochemical Pathway to Promote Pt-catalyzed Formaldehyde Oxidation. Nano Letters, 2020, 20, 8719-8724.	9.1	15
49	Atomically Thin Bilayer Janus Membranes for Cryo-electron Microscopy. ACS Nano, 2021, 15, 16562-16571.	14.6	5
50	Looking cool. Nature Energy, 2018, 3, 1023-1024.	39.5	4
51	Cryogenic-electron Microscopy for Battery Materials. Microscopy and Microanalysis, 2020, 26, 1824-1825.	0.4	0
52	Resolving Nanoscale Heterogeneity in Battery Interphases with Cryo-EM. Microscopy and Microanalysis, 2020, 26, 2786-2788.	0.4	0
53	Resolve cathode electrolyte interphase in lithium batteries with cryo-EM. Microscopy and Microanalysis, 2021, 27, 2188-2190.	0.4	0