Yuzhang Li

List of Publications by Citations

52 papers	10,443 citations	42 h-index	57 g-index
57 ext. papers	12,670 ext. citations	24.3 avg, IF	6.52 L-index

#	Paper	IF	Citations
52	A phosphorene-graphene hybrid material as a high-capacity anode for sodium-ion batteries. *Nature Nanotechnology*, **2015**, 10, 980-5	28.7	1114
51	Selective deposition and stable encapsulation of lithium through heterogeneous seeded growth. *Nature Energy*, **2016**, 1,	62.3	1065
50	Atomic structure of sensitive battery materials and interfaces revealed by cryo-electron microscopy. *Science*, **2017**, 358, 506-510	33.3	714
49	Nanoscale Nucleation and Growth of Electrodeposited Lithium Metal. *Nano Letters*, **2017**, 17, 1132-1139	11.5	699
48	Ionic conductivity enhancement of polymer electrolytes with ceramic nanowire fillers. *Nano Letters*, **2015**, 15, 2740-5	11.5	589
47	Growth of conformal graphene cages on micrometre-sized silicon particles as stable battery anodes. *Nature Energy*, **2016**, 1,	62.3	509
46	Nonfilling carbon coating of porous silicon micrometer-sized particles for high-performance lithium battery anodes. *ACS Nano*, **2015**, 9, 2540-7	16.7	372
45	Entrapment of Polysulfides by a Black-Phosphorus-Modified Separator for Lithium-Sulfur Batteries. *Advanced Materials*, **2016**, 28, 9797-9803	24	371
44	Direct and continuous strain control of catalysts with tunable battery electrode materials. *Science*, **2016**, 354, 1031-1036	33.3	369
43	In Situ Electrochemical Oxidation Tuning of Transition Metal Disulfides to Oxides for Enhanced Water Oxidation. *ACS Central Science*, **2015**, 1, 244-51	16.8	314
42	Air-stable and freestanding lithium alloy/graphene foil as an alternative to lithium metal anodes. *Nature Nanotechnology*, **2017**, 12, 993-999	28.7	290
41	Surface Fluorination of Reactive Battery Anode Materials for Enhanced Stability. *Journal of the American Chemical Society*, **2017**, 139, 11550-11558	16.4	270
40	Sulfur-Modulated Tin Sites Enable Highly Selective Electrochemical Reduction of CO2 to Formate. *Joule*, **2017**, 1, 794-805	27.8	263
39	Solubility-mediated sustained release enabling nitrate additive in carbonate electrolytes for stable lithium metal anode. *Nature Communications*, **2018**, 9, 3656	17.4	234
38	Improving cyclability of Li metal batteries at elevated temperatures and its origin revealed by cryo-electron microscopy. *Nature Energy*, **2019**, 4, 664-670	62.3	200
37	Fast and reversible thermoresponsive polymer switching materials for safer batteries. *Nature Energy*, **2016**, 1,	62.3	190
36	Correlating Structure and Function of Battery Interphases at Atomic Resolution Using Cryoelectron Microscopy. *Joule*, **2018**, 2, 2167-2177	27.8	177

35	A manganese–hydrogen battery with potential for grid-scale energy storage. *Nature Energy*, **2018**, 3, 428-435	62.3	174
34	High-capacity battery cathode prelithiation to offset initial lithium loss. *Nature Energy*, **2016**, 1,	62.3	169
33	Ultrahigh-current density anodes with interconnected Li metal reservoir through overlithiation of mesoporous AlF framework. *Science Advances*, **2017**, 3, e1701301	14.3	158
32	In Situ Electrochemically Derived Nanoporous Oxides from Transition Metal Dichalcogenides for Active Oxygen Evolution Catalysts. *Nano Letters*, **2016**, 16, 7588-7596	11.5	152
31	Wrinkled Graphene Cages as Hosts for High-Capacity Li Metal Anodes Shown by Cryogenic Electron Microscopy. *Nano Letters*, **2019**, 19, 1326-1335	11.5	136
30	Robust Pinhole-free LiN Solid Electrolyte Grown from Molten Lithium. *ACS Central Science*, **2018**, 4, 97-104	14.8	130
29	Engineering stable interfaces for three-dimensional lithium metal anodes. *Science Advances*, **2018**, 4, eaat5168	14.3	116
28	Identifying the Active Surfaces of Electrochemically Tuned LiCoO for Oxygen Evolution Reaction. *Journal of the American Chemical Society*, **2017**, 139, 6270-6276	16.4	115
27	Resolving Nanoscopic and Mesoscopic Heterogeneity of Fluorinated Species in Battery Solid-Electrolyte Interphases by Cryogenic Electron Microscopy. *ACS Energy Letters*, **2020**, 5, 1128-1135	20.1	112
26	Design of Red Phosphorus Nanostructured Electrode for Fast-Charging Lithium-Ion Batteries with High Energy Density. *Joule*, **2019**, 3, 1080-1093	27.8	102
25	Fast galvanic lithium corrosion involving a Kirkendall-type mechanism. *Nature Chemistry*, **2019**, 11, 382-389	19.6	100
24	Lithium Metal Anode Materials Design: Interphase and Host. *Electrochemical Energy Reviews*, **2019**, 2, 509-517	29.3	94
23	Synergistic enhancement of electrocatalytic CO reduction to C oxygenates at nitrogen-doped nanodiamonds/Cu interface. *Nature Nanotechnology*, **2020**, 15, 131-137	28.7	92
22	Stabilized Li3N for efficient battery cathode prelithiation. *Energy Storage Materials*, **2017**, 6, 119-124	19.4	82
21	Shell-Protective Secondary Silicon Nanostructures as Pressure-Resistant High-Volumetric-Capacity Anodes for Lithium-Ion Batteries. *Nano Letters*, **2018**, 18, 7060-7065	11.5	78
20	Evolution of the Solid-Electrolyte Interphase on Carbonaceous Anodes Visualized by Atomic-Resolution Cryogenic Electron Microscopy. *Nano Letters*, **2019**, 19, 5140-5148	11.5	72
19	Unravelling Atomic Structure and Degradation Mechanisms of Organic-Inorganic Halide Perovskites by Cryo-EM. *Joule*, **2019**, 3, 2854-2866	27.8	69
18	Tortuosity Effects in Lithium-Metal Host Anodes. *Joule*, **2020**, 4, 938-952	27.8	69

17	Dynamic Structure and Chemistry of the Silicon Solid-Electrolyte Interphase Visualized by Cryogenic Electron Microscopy. *Matter*, **2019**, 1, 1232-1245	12.7	65
16	Revealing Nanoscale Passivation and Corrosion Mechanisms of Reactive Battery Materials in Gas Environments. *Nano Letters*, **2017**, 17, 5171-5178	11.5	62
15	Cryo-EM structures of atomic surfaces and host-guest chemistry in metal-organic frameworks. *Matter*, **2019**, 1, 428-438	12.7	59
14	Cathode-Electrolyte Interphase in Lithium Batteries Revealed by Cryogenic Electron Microscopy. *Matter*, **2021**, 4, 302-312	12.7	57
13	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	16.7	53
12	Corrosion of lithium metal anodes during calendar ageing and its microscopic origins. *Nature Energy* , **2021**, 6, 487-494	62.3	49
11	Capturing the swelling of solid-electrolyte interphase in lithium metal batteries.. *Science*, **2022**, 375, 66-70	63.3	40
10	Opportunities for Cryogenic Electron Microscopy in Materials Science and Nanoscience. *ACS Nano*, **2020**, 14, 9263-9276	16.7	26
9	Perspectives in in situ transmission electron microscopy studies on lithium battery electrodes. *Current Opinion in Chemical Engineering*, **2016**, 12, 37-43	5.4	19
8	Catalyst: How Cryo-EM Shapes the Development of Next-Generation Batteries. *CheM*, **2018**, 4, 2250-2252	26.2	14
7	In situ formation of ionically conductive nanointerphase on Si particles for stable battery anode. *Science China Chemistry*, **2021**, 64, 1417-1425	7.9	11
6	Spheres of Graphene and Carbon Nanotubes Embedding Silicon as Mechanically Resilient Anodes for Lithium-Ion Batteries.. *Nano Letters*, **2022**,	11.5	5
5	Designing a Nanoscale Three-phase Electrochemical Pathway to Promote Pt-catalyzed Formaldehyde Oxidation. *Nano Letters*, **2020**, 20, 8719-8724	11.5	4
4	Atomically Thin Bilayer Janus Membranes for Cryo-electron Microscopy. *ACS Nano*, **2021**, 15, 16562-16571	16.7	2
3	Cryogenic-electron Microscopy for Battery Materials. *Microscopy and Microanalysis*, **2020**, 26, 1824-1825	0.5	
2	Resolving Nanoscale Heterogeneity in Battery Interphases with Cryo-EM. *Microscopy and Microanalysis*, **2020**, 26, 2786-2788	0.5	
1	Resolve cathode electrolyte interphase in lithium batteries with cryo-EM. *Microscopy and Microanalysis*, **2021**, 27, 2188-2190	0.5	