William Huang

List of Publications by Year
in descending order

37	4,934	159525 30	377752 34
papers	citations	h-index	g-index

38	38	38	4000
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Capturing the swelling of solid-electrolyte interphase in lithium metal batteries. Science, 2022, 375, 66-70.	6.0	183
2	Suspension electrolyte with modified Li+ solvation environment for lithium metal batteries. Nature Materials, 2022, 21, 445-454.	13.3	155
3	Graphene coating on silicon anodes enabled by thermal surface modification for high-energy lithium-ion batteries. MRS Bulletin, 2022, 47, 127-133.	1.7	13
4	Electrical resistance of the current collector controls lithium morphology. Nature Communications, 2022, 13, .	5.8	20
5	Cathode-Electrolyte Interphase in Lithium Batteries Revealed by Cryogenic Electron Microscopy. Matter, 2021, 4, 302-312.	5.0	127
6	Organic wastewater treatment by a single-atom catalyst and electrolytically produced H2O2. Nature Sustainability, 2021, 4, 233-241.	11.5	350
7	Efficient Lithium Metal Cycling over a Wide Range of Pressures from an Anion-Derived Solid-Electrolyte Interphase Framework. ACS Energy Letters, 2021, 6, 816-825.	8.8	46
8	Corrosion of lithium metal anodes during calendar ageing and its microscopic origins. Nature Energy, 2021, 6, 487-494.	19.8	124
9	Dualâ€Solvent Liâ€Ion Solvation Enables Highâ€Performance Liâ€Metal Batteries. Advanced Materials, 2021, 33, e2008619.	11.1	123
10	Potentiometric Measurement to Probe Solvation Energy and Its Correlation to Lithium Battery Cyclability. Journal of the American Chemical Society, 2021, 143, 10301-10308.	6.6	83
11	Resolve cathode electrolyte interphase in lithium batteries with cryo-EM. Microscopy and Microanalysis, 2021, 27, 2188-2190.	0.2	0
12	A Water Stable, Nearâ€Zeroâ€Strain O3â€Layered Titaniumâ€Based Anode for Long Cycle Sodiumâ€Ion Battery. Advanced Functional Materials, 2020, 30, 1907023.	7.8	36
13	Nickel Impurities in the Solid-Electrolyte Interphase of Lithium-Metal Anodes Revealed by Cryogenic Electron Microscopy. Cell Reports Physical Science, 2020, 1, 100188.	2.8	22
14	Microclusters of Kinked Silicon Nanowires Synthesized by a Recyclable Iodide Process for Highâ€Performance Lithiumâ€Ion Battery Anodes. Advanced Energy Materials, 2020, 10, 2002108.	10.2	57
15	Revealing and Elucidating ALDâ€Derived Control of Lithium Plating Microstructure. Advanced Energy Materials, 2020, 10, 2002736.	10.2	37
16	Opportunities for Cryogenic Electron Microscopy in Materials Science and Nanoscience. ACS Nano, 2020, 14, 9263-9276.	7.3	55
17	Underpotential lithium plating on graphite anodes caused by temperature heterogeneity. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 29453-29461.	3.3	94
18	Molecular design for electrolyte solvents enabling energy-dense and long-cycling lithium metal batteries. Nature Energy, 2020, 5, 526-533.	19.8	642

#	Article	IF	Citations
19	Resolving Nanoscopic and Mesoscopic Heterogeneity of Fluorinated Species in Battery Solid-Electrolyte Interphases by Cryogenic Electron Microscopy. ACS Energy Letters, 2020, 5, 1128-1135.	8.8	199
20	Transient Voltammetry with Ultramicroelectrodes Reveals the Electron Transfer Kinetics of Lithium Metal Anodes. ACS Energy Letters, 2020, 5, 701-709.	8.8	91
21	Scalable synthesis of nanoporous silicon microparticles for highly cyclable lithium-ion batteries. Nano Research, 2020, 13, 1558-1563.	5.8	65
22	Tortuosity Effects in Lithium-Metal Host Anodes. Joule, 2020, 4, 938-952.	11.7	150
23	Improving Lithium Metal Composite Anodes with Seeding and Pillaring Effects of Silicon Nanoparticles. ACS Nano, 2020, 14, 4601-4608.	7.3	61
24	Resolving Heterogeneity in Battery Interphases By Cryogenic Electron Microscopy. ECS Meeting Abstracts, 2020, MA2020-02, 2603-2603.	0.0	0
25	Controlling the Nucleation Morphology of Lithium Using ALD-Grown TiO₂. ECS Meeting Abstracts, 2020, MA2020-02, 730-730.	0.0	0
26	Multi-modal Analytical Insights Into Li-Ion Battery Ageing with XFC. Microscopy and Microanalysis, 2019, 25, 2130-2131.	0.2	0
27	Evolution of the Solidâ€“Electrolyte Interphase on Carbonaceous Anodes Visualized by Atomic-Resolution Cryogenic Electron Microscopy. Nano Letters, 2019, 19, 5140-5148.	4.5	132
28	Improving cyclability of Li metal batteries at elevated temperatures and its origin revealed by cryo-electron microscopy. Nature Energy, 2019, 4, 664-670.	19.8	336
29	Dynamic Structure and Chemistry of the Silicon Solid-Electrolyte Interphase Visualized by Cryogenic Electron Microscopy. Matter, 2019, 1, 1232-1245.	5.0	107
30	Monolithic solidâ€“electrolyte interphases formed in fluorinated orthoformate-based electrolytes minimize Li depletion and pulverization. Nature Energy, 2019, 4, 796-805.	19.8	621
31	Fast galvanic lithium corrosion involving a Kirkendall-type mechanism. Nature Chemistry, 2019, 11, 382-389.	6.6	180
32	Cryo-EM Structures of Atomic Surfaces and Host-Guest Chemistry in Metal-Organic Frameworks. Matter, 2019, 1, 428-438.	5.0	102
33	Surface-engineered mesoporous silicon microparticles as high-Coulombic-efficiency anodes for lithium-ion batteries. Nano Energy, 2019, 61, 404-410.	8.2	134
34	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.	7.3	78
35	Correlating Structure and Function of Battery Interphases at Atomic Resolution Using Cryoelectron Microscopy. Joule, 2018, 2, 2167-2177.	11.7	284
36	Coreâ€“Shell Nanofibrous Materials with High Particulate Matter Removal Efficiencies and Thermally Triggered Flame Retardant Properties. ACS Central Science, 2018, 4, 894-898.	5.3	73

#	Article	IF	Citations
37	Engineering stable interfaces for three-dimensional lithium metal anodes. Science Advances, 2018, 4, eaat5168.	4.7	153