Allen Pei

List of Publications by Year
in descending order

40 papers	10,946 citations	87723 38 h-index	288905 40 g-index
40 all docs	40 docs citations	40 times ranked	9685 citing authors

#	Article	IF	Citations
1	Nanoscale Nucleation and Growth of Electrodeposited Lithium Metal. Nano Letters, 2017, 17, 1132-1139.	4.5	1,081
2	Atomic structure of sensitive battery materials and interfaces revealed by cryoâ€“electron microscopy. Science, 2017, 358, 506-510.	6.0	1,039
3	Materials for lithium-ion battery safety. Science Advances, 2018, 4, eaas9820.	4.7	958
4	Lithium Metal Anodes with an Adaptive â€œSolid-Liquidâ€•Interfacial Protective Layer. Journal of the American Chemical Society, 2017, 139, 4815-4820.	6.6	460
5	Surface Fluorination of Reactive Battery Anode Materials for Enhanced Stability. Journal of the American Chemical Society, 2017, 139, 11550-11558.	6.6	398
6	Highly Efficient Light-Driven TiO₂â€“Au Janus Micromotors. ACS Nano, 2016, 10, 839-844.	7.3	392
7	Stabilizing Lithium Metal Anodes by Uniform Li-Ion Flux Distribution in Nanochannel Confinement. Journal of the American Chemical Society, 2016, 138, 15443-15450.	6.6	386
8	Solubility-mediated sustained release enabling nitrate additive in carbonate electrolytes for stable lithium metal anode. Nature Communications, 2018, 9, 3656.	5.8	371
9	Efficient electrocatalytic CO2 reduction on a three-phase interface. Nature Catalysis, 2018, 1, 592-600.	16.1	336
10	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
11	Seawater-driven magnesium based Janus micromotors for environmental remediation. Nanoscale, 2013, 5, 4696.	2.8	333
12	Uniform High Ionic Conducting Lithium Sulfide Protection Layer for Stable Lithium Metal Anode. Advanced Energy Materials, 2019, 9, 1900858.	10.2	333
13	Water-Driven Micromotors. ACS Nano, 2012, 6, 8432-8438.	7.3	326
14	Effects of Polymer Coatings on Electrodeposited Lithium Metal. Journal of the American Chemical Society, 2018, 140, 11735-11744.	6.6	307
15	Catalytic Iridium-Based Janus Micromotors Powered by Ultralow Levels of Chemical Fuels. Journal of the American Chemical Society, 2014, 136, 2276-2279.	6.6	300
16	Correlating Structure and Function of Battery Interphases at Atomic Resolution Using Cryoelectron Microscopy. Joule, 2018, 2, 2167-2177.	11.7	284
17	High-Performance Lithium Metal Negative Electrode with a Soft and Flowable Polymer Coating. ACS Energy Letters, 2016, 1, 1247-1255.	8.8	281
18	Stitching h-BN by atomic layer deposition of LiF as a stable interface for lithium metal anode. Science Advances, 2017, 3, eaao3170.	4.7	252

#	Article	IF	Citations
19	Wrinkled Graphene Cages as Hosts for High-Capacity Li Metal Anodes Shown by Cryogenic Electron Microscopy. Nano Letters, 2019, 19, 1326-1335.	4.5	193
20	Organized Self-Assembly of Janus Micromotors with Hydrophobic Hemispheres. Journal of the American Chemical Society, 2013, 135, 998-1001.	6.6	189
21	Strong texturing of lithium metal in batteries. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12138-12143.	3.3	188
22	Fast galvanic lithium corrosion involving a Kirkendall-type mechanism. Nature Chemistry, 2019, 11, 382-389.	6.6	180
23	Fast lithium growth and short circuit induced by localized-temperature hotspots in lithium batteries. Nature Communications, 2019, 10, 2067.	5.8	177
24	A Dynamic, Electrolyte-Blocking, and Single-Ion-Conductive Network for Stable Lithium-Metal Anodes. Joule, 2019, 3, 2761-2776.	11.7	176
25	An Ultrastrong Double-Layer Nanodiamond Interface for Stable Lithium Metal Anodes. Joule, 2018, 2, 1595-1609.	11.7	155
26	Engineering stable interfaces for three-dimensional lithium metal anodes. Science Advances, 2018, 4, eaat5168.	4.7	153
27	Polymer-based tubular microbots: role of composition and preparation. Nanoscale, 2012, 4, 2447.	2.8	150
28	Lithium metal stripping beneath the solid electrolyte interphase. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8529-8534.	3.3	150
29	Tortuosity Effects in Lithium-Metal Host Anodes. Joule, 2020, 4, 938-952.	11.7	150
30	Nanomotor lithography. Nature Communications, 2014, 5, 5026.	5.8	141
31	Breathing-Mimicking Electrocatalysis for Oxygen Evolution and Reduction. Joule, 2019, 3, 557-569.	11.7	132
32	Nanoscale perspective: Materials designs and understandings in lithium metal anodes. Nano Research, 2017, 10, 4003-4026.	5.8	130
33	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
34	Transient Voltammetry with Ultramicroelectrodes Reveals the Electron Transfer Kinetics of Lithium Metal Anodes. ACS Energy Letters, 2020, 5, 701-709.	8.8	91
35	An Interconnected Channelâ€Like Framework as Host for Lithium Metal Composite Anodes. Advanced Energy Materials, 2019, 9, 1802720.	10.2	83
36	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

#	Article	IF	Citations
37	An ultrathin ionomer interphase for high efficiency lithium anode in carbonate based electrolyte. Nature Communications, 2019, 10, 5824.	5.8	62
38	ZnO-based microrockets with light-enhanced propulsion. Nanoscale, 2017, 9, 15027-15032.	2.8	53
39	Motion-based threat detection using microrods: experiments and numerical simulations. Nanoscale, 2015, 7, 7833-7840.	2.8	26
40	Electrotunable liquid sulfurÂmicrodroplets. Nature Communications, 2020, 11, 606.	5.8	22