Zheng Liang

List of Publications by Year
in descending order

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43 papers	12,094 citations	136950 32 h-index	276875 41 g-index
44 all docs	44 docs citations	44 times ranked	10638 citing authors

#	Article	IF	Citations
1	Layered reduced graphene oxide with nanoscale interlayer gaps as a stable host for lithium metal anodes. Nature Nanotechnology, 2016, 11, 626-632.	31.5	1,557
2	Interconnected hollow carbon nanospheres for stable lithium metal anodes. Nature Nanotechnology, 2014, 9, 618-623.	31.5	1,535
3	The synergetic effect of lithium polysulfide and lithium nitrate to prevent lithium dendrite growth. Nature Communications, 2015, 6, 7436.	12.8	1,250
4	A review of lithium-ion battery safety concerns: The issues, strategies, and testing standards. Journal of Energy Chemistry, 2021, 59, 83-99.	12.9	768
5	Composite lithium metal anode by melt infusion of lithium into a 3D conducting scaffold with lithiophilic coating. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2862-2867.	7.1	755
6	Lithium-coated polymeric matrix as a minimum volume-change and dendrite-free lithium metal anode. Nature Communications, 2016, 7, 10992.	12.8	745
7	Ultrathin Two-Dimensional Atomic Crystals as Stable Interfacial Layer for Improvement of Lithium Metal Anode. Nano Letters, 2014, 14, 6016-6022.	9.1	656
8	Polymer Nanofiber-Guided Uniform Lithium Deposition for Battery Electrodes. Nano Letters, 2015, 15, 2910-2916.	9.1	495
9	Improved lithiumâ€“sulfur batteries with a conductive coating on the separator to prevent the accumulation of inactive S-related species at the cathodeâ€“separator interface. Energy and Environmental Science, 2014, 7, 3381-3390.	30.8	476
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	Improving lithiumâ€“sulphur batteries through spatial control of sulphur species deposition on a hybrid electrode surface. Nature Communications, 2014, 5, 3943.	12.8	369
12	Efficient solar-driven water splitting by nanocone BiVO ₄ -perovskite tandem cells. Science Advances, 2016, 2, e1501764.	10.3	351
13	Efficient electrocatalytic CO2 reduction on a three-phase interface. Nature Catalysis, 2018, 1, 592-600.	34.4	336
14	A manganeseâ€“hydrogen battery with potential for grid-scale energy storage. Nature Energy, 2018, 3, 428-435.	39.5	325
15	Sulfur Cathodes with Hydrogen Reduced Titanium Dioxide Inverse Opal Structure. ACS Nano, 2014, 8, 5249-5256.	14.6	297
16	High Electrochemical Selectivity of Edge versus Terrace Sites in Two-Dimensional Layered MoS₂ Materials. Nano Letters, 2014, 14, 7138-7144.	9.1	269
17	Solid Polymer Electrolytes with High Conductivity and Transference Number of Li Ions for Liâ€Based Rechargeable Batteries. Advanced Science, 2021, 8, 2003675.	11.2	172
18	Microwave chemistry, recent advancements, and eco-friendly microwave-assisted synthesis of nanoarchitectures and their applications: a review. Materials Today Nano, 2020, 11, 100076.	4.6	154

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19	A Sulfur Cathode with Pomegranateâ€Like Cluster Structure. Advanced Energy Materials, 2015, 5, 1500211.	19.5	122
20	Direct conversion of degraded LiCoO2 cathode materials into high-performance LiCoO2: A closed-loop green recycling strategy for spent lithium-ion batteries. Energy Storage Materials, 2022, 45, 768-776.	18.0	103
21	Supercooled liquid sulfur maintained in three-dimensional current collector for high-performance Li-S batteries. Science Advances, 2020, 6, eaay5098.	10.3	95
22	Lithium Fluoride in Electrolyte for Stable and Safe Lithiumâ€Metal Batteries. Advanced Materials, 2021, 33, e2102134.	21.0	91
23	Direct and green repairing of degraded LiCoO2 for reuse in lithium-ion batteries. National Science Review, 2022, 9, .	9.5	85
24	Manipulating the oxygen reduction reaction pathway on Pt-coordinated motifs. Nature Communications, 2022, 13, 685.	12.8	82
25	Composite lithium electrode with mesoscale skeleton via simple mechanical deformation. Science Advances, 2019, 5, eaau5655.	10.3	79
26	Self-Selective Catalyst Synthesis for CO2 Reduction. Joule, 2019, 3, 1927-1936.	24.0	63
27	Binder-Free Electrodes and Their Application for Li-Ion Batteries. Nanoscale Research Letters, 2020, 15, 112.	5.7	62
28	Magnetic Field-Controlled Lithium Polysulfide Semiliquid Battery with Ferrofluidic Properties. Nano Letters, 2015, 15, 7394-7399.	9.1	61
29	Progress, Key Issues, and Future Prospects for Liâ€Ion Battery Recycling. Global Challenges, 2022, 6, .	3.6	56
30	Precise separation of spent lithium-ion cells in water without discharging for recycling. Energy Storage Materials, 2022, 45, 1092-1099.	18.0	49
31	An Artificial Electrode/Electrolyte Interface for CO₂ Electroreduction by Cation Surfactant Selfâ€Assembly. Angewandte Chemie, 2020, 132, 19257-19263.	2.0	45
32	A novel three-step approach to separate cathode components for lithium-ion battery recycling. Rare Metals, 2021, 40, 1431-1436.	7.1	42
33	Room-temperature extraction of individual elements from charged spent LiFePO4 batteries. Rare Metals, 2022, 41, 1595-1604.	7.1	27
34	Fast and Stable Electrochemical Production of H₂O₂ by Electrode Architecture Engineering. ACS Sustainable Chemistry and Engineering, 2021, 9, 7120-7129.	6.7	24
35	Large-scale synthesis of lithium- and manganese-rich materials with uniform thin-film Al2O3 coating for stable cathode cycling. Science China Materials, 2020, 63, 1683-1692.	6.3	23
36	Phosphorus-doped lithium- and manganese-rich layered oxide cathode material for fast charging lithium-ion batteries. Journal of Energy Chemistry, 2021, 62, 538-545.	12.9	23

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37	Biomass-Derived Anion-Anchoring Nano-CaCO₃Coating for Regulating Ion Transport on Li Metal Surface. Nano Letters, 2022, 22, 5473-5480.	9.1	23
38	Electrospun Core-Shell Nanofiber as Separator for Lithium-Ion Batteries with High Performance and Improved Safety. Energies, 2019, 12, 3391.	3.1	15
39	Molecular Sieve-Modified Separator for High-Performance Lithium-Ion Batteries. Nanoscale Research Letters, 2020, 15, 107.	5.7	8
40	Lithium Fluoride in Electrolyte for Stable and Safe Lithiumâ€Metal Batteries (Adv. Mater. 42/2021). Advanced Materials, 2021, 33, 2170331.	21.0	4
41	Binder-Free Electrode based on Electrospun-Fiber for Li Ion Batteries via a Simple Rolling Formation. Nanoscale Research Letters, 2020, 15, 147.	5.7	3
42	Black TiO2 Nanomaterials for Lithiumâ€“Sulfur Batteries. , 2017, , 275-304.		1
43	Composite Lithium Metal Anode Via a Simple Rolling-Cutting Method. ECS Meeting Abstracts, 2019, , .	0.0	0