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	Precise separation of spent lithium-ion cells in water without discharging for recycling. Energy Storage Materials, 2022, 45, 1092-1099.	18.0	49
2	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
3	Room-temperature extraction of individual elements from charged spent LiFePO4 batteries. Rare Metals, 2022, 41, 1595-1604.	7.1	27
4	Manipulating the oxygen reduction reaction pathway on Pt-coordinated motifs. Nature Communications, 2022, 13, 685.	12.8	82
5	Direct and green repairing of degraded LiCoO2 for reuse in lithium-ion batteries. National Science Review, 2022, 9, .	9.5	85
6	Biomass-Derived Anion-Anchoring Nano-CaCO₃Coating for Regulating Ion Transport on Li Metal Surface. Nano Letters, 2022, 22, 5473-5480.	9.1	23
7	Progress, Key Issues, and Future Prospects for Liâ€Ion Battery Recycling. Global Challenges, 2022, 6, .	3.6	56
8	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
9	A novel three-step approach to separate cathode components for lithium-ion battery recycling. Rare Metals, 2021, 40, 1431-1436.	7.1	42
10	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
11	Fast and Stable Electrochemical Production of H₂O₂ by Electrode Architecture Engineering. ACS Sustainable Chemistry and Engineering, 2021, 9, 7120-7129.	6.7	24
12	Lithium Fluoride in Electrolyte for Stable and Safe Lithiumâ€Metal Batteries. Advanced Materials, 2021, 33, e2102134.	21.0	91
13	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
14	Lithium Fluoride in Electrolyte for Stable and Safe Lithiumâ€Metal Batteries (Adv. Mater. 42/2021). Advanced Materials, 2021, 33, 2170331.	21.0	4
15	An Artificial Electrode/Electrolyte Interface for CO₂ Electroreduction by Cation Surfactant Selfâ€Assembly. Angewandte Chemie, 2020, 132, 19257-19263.	2.0	45
16	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
17	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
18	Supercooled liquid sulfur maintained in three-dimensional current collector for high-performance Li-S batteries. Science Advances, 2020, 6, eaay5098.	10.3	95

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19	Binder-Free Electrodes and Their Application for Li-Ion Batteries. Nanoscale Research Letters, 2020, 15, 112.	5.7	62
20	Molecular Sieve-Modified Separator for High-Performance Lithium-Ion Batteries. Nanoscale Research Letters, 2020, 15, 107.	5.7	8
21	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
22	Self-Selective Catalyst Synthesis for CO2 Reduction. Joule, 2019, 3, 1927-1936.	24.0	63
23	Electrospun Core-Shell Nanofiber as Separator for Lithium-Ion Batteries with High Performance and Improved Safety. Energies, 2019, 12, 3391.	3.1	15
24	Composite lithium electrode with mesoscale skeleton via simple mechanical deformation. Science Advances, 2019, 5, eaau5655.	10.3	79
25	Composite Lithium Metal Anode Via a Simple Rolling-Cutting Method. ECS Meeting Abstracts, 2019, , .	0.0	0
26	A manganeseâ€“hydrogen battery with potential for grid-scale energy storage. Nature Energy, 2018, 3, 428-435.	39.5	325
27	Efficient electrocatalytic CO2 reduction on a three-phase interface. Nature Catalysis, 2018, 1, 592-600.	34.4	336
28	Black TiO2 Nanomaterials for Lithiumâ€“Sulfur Batteries. , 2017, , 275-304.		1
29	Surface Fluorination of Reactive Battery Anode Materials for Enhanced Stability. Journal of the American Chemical Society, 2017, 139, 11550-11558.	13.7	398
30	Efficient solar-driven water splitting by nanocone BiVO ₄ -perovskite tandem cells. Science Advances, 2016, 2, e1501764.	10.3	351
31	Lithium-coated polymeric matrix as a minimum volume-change and dendrite-free lithium metal anode. Nature Communications, 2016, 7, 10992.	12.8	745
32	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
33	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
34	The synergetic effect of lithium polysulfide and lithium nitrate to prevent lithium dendrite growth. Nature Communications, 2015, 6, 7436.	12.8	1,250
35	A Sulfur Cathode with Pomegranateâ€Like Cluster Structure. Advanced Energy Materials, 2015, 5, 1500211.	19.5	122
36	Polymer Nanofiber-Guided Uniform Lithium Deposition for Battery Electrodes. Nano Letters, 2015, 15, 2910-2916.	9.1	495

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37	Magnetic Field-Controlled Lithium Polysulfide Semiliquid Battery with Ferrofluidic Properties. Nano Letters, 2015, 15, 7394-7399.	9.1	61
38	Improving lithiumâ€“sulphur batteries through spatial control of sulphur species deposition on a hybrid electrode surface. Nature Communications, 2014, 5, 3943.	12.8	369
39	High Electrochemical Selectivity of Edge versus Terrace Sites in Two-Dimensional Layered MoS₂ Materials. Nano Letters, 2014, 14, 7138-7144.	9.1	269
40	Interconnected hollow carbon nanospheres for stable lithium metal anodes. Nature Nanotechnology, 2014, 9, 618-623.	31.5	1,535
41	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
42	Ultrathin Two-Dimensional Atomic Crystals as Stable Interfacial Layer for Improvement of Lithium Metal Anode. Nano Letters, 2014, 14, 6016-6022.	9.1	656
43	Sulfur Cathodes with Hydrogen Reduced Titanium Dioxide Inverse Opal Structure. ACS Nano, 2014, 8, 5249-5256.	14.6	297