

Wanhai Zhou

List of Publications by Year in descending order

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Version: 2024-02-01

27
papers

3,750
citations

394286

19
h-index

526166

27
g-index

27
all docs

27
docs citations

27
times ranked

2300
citing authors

#	ARTICLE	IF	CITATIONS
1	The origin of capacity fluctuation and rescue of dead Mn-based Zn-ion batteries: a Mn-based competitive capacity evolution protocol. <i>Energy and Environmental Science</i> , 2022, 15, 1106-1118.	15.6	124
2	Hierarchical Confinement Effect with Zincophilic and Spatial Traps Stabilized Zn-Based Aqueous Battery. <i>Nano Letters</i> , 2022, 22, 4223-4231.	4.5	99
3	Aqueous zinc-ion batteries at extreme temperature: Mechanisms, challenges, and strategies. <i>Energy Storage Materials</i> , 2022, 51, 683-718.	9.5	54
4	Simultaneous Regulation on Solvation Shell and Electrode Interface for Dendrite-Free Zn Ion Batteries Achieved by a Low-Cost Glucose Additive. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 18247-18255.	7.2	529
5	Simultaneous Regulation on Solvation Shell and Electrode Interface for Dendrite-Free Zn Ion Batteries Achieved by a Low-Cost Glucose Additive. <i>Angewandte Chemie</i> , 2021, 133, 18395-18403.	1.6	97
6	Sulfur-Based Aqueous Batteries: Electrochemistry and Strategies. <i>Journal of the American Chemical Society</i> , 2021, 143, 15475-15489.	6.6	148
7	Porous cube-like Mn ₃ O ₄ @C as an advanced cathode for low-cost neutral zinc-ion battery. <i>Journal of Alloys and Compounds</i> , 2020, 813, 151812.	2.8	53
8	Ni ₃ S ₂ -coated metal hydride anode with high-power and long-life performance for low-temperature Ni-MH power batteries. <i>Chemical Engineering Journal</i> , 2020, 379, 122204.	6.6	26
9	Ultrafast Co _{0.8} Al _{0.2} -Layered Double-Hydroxide Nanosheets Cathode for High-Performance Co-Zn Battery. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 14877-14885.	3.2	13
10	Atomic Engineering Catalyzed MnO ₂ Electrolysis Kinetics for a Hybrid Aqueous Battery with High Power and Energy Density. <i>Advanced Materials</i> , 2020, 32, e2001894.	11.1	221
11	A scalable top-down strategy toward practical metrics of Ni-Zn aqueous batteries with total energy densities of 165 W h kg ⁻¹ and 506 W h L ⁻¹ . <i>Energy and Environmental Science</i> , 2020, 13, 4157-4167.	15.6	142
12	Hierarchical NiSe ₂ Nanosheet Arrays as a Robust Cathode toward Superdurable and Ultrafast Ni-Zn Aqueous Batteries. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 34931-34940.	4.0	47
13	Hybrid Aqueous Batteries: Atomic Engineering Catalyzed MnO ₂ Electrolysis Kinetics for a Hybrid Aqueous Battery with High Power and Energy Density (Adv. Mater. 25/2020). <i>Advanced Materials</i> , 2020, 32, 2070191.	11.1	3
14	Roadmap for advanced aqueous batteries: From design of materials to applications. <i>Science Advances</i> , 2020, 6, eaba4098.	4.7	1,069
15	SOC-dependent high-rate dischargeability of AB ₅ -type metal hydride anode: Mechanism linking phase transition to electrochemical H-desorption kinetics. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 15278-15286.	3.8	6
16	An Electrolytic Zn-MnO ₂ Battery for High-Voltage and Scalable Energy Storage. <i>Angewandte Chemie</i> , 2019, 131, 7905-7910.	1.6	114
17	An Electrolytic Zn-MnO ₂ Battery for High-Voltage and Scalable Energy Storage. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 7823-7828.	7.2	787
18	Nanoscale tungsten nitride/nitrogen-doped carbon as an efficient non-noble metal catalyst for hydrogen and oxygen recombination at room temperature in nickel-iron batteries. <i>RSC Advances</i> , 2018, 8, 35343-35347.	1.7	10

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19	Long-life Ni-MH batteries with high-power delivery at lower temperatures: Coordination of low-temperature and high-power delivery with cycling life of low-Al AB5-type hydrogen storage alloys. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 21464-21477.	3.8	34
20	Improvement in low-temperature and instantaneous high-rate output performance of Al-free AB5-type hydrogen storage alloy for negative electrode in Ni/MH battery: Effect of thermodynamic and kinetic regulation via partial Mn substituting. <i>Journal of Power Sources</i> , 2017, 343, 11-21.	4.0	50
21	Low-temperature and instantaneous high-rate output performance of AB5-type hydrogen storage alloy with duplex surface hot-alkali treatment. <i>Journal of Alloys and Compounds</i> , 2017, 692, 364-374.	2.8	31
22	The high-temperature performance of low-cost La Ni Fe based hydrogen storage alloys with Si substituting. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 14852-14863.	3.8	11
23	The mechanism of suppressing capacity degradation of high-Al AB5-type hydrogen storage alloys at 60°C. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 1801-1810.	3.8	16
24	High-temperature electrochemical performance of low-cost La-Ni-Fe based hydrogen storage alloys with different preparation methods. <i>Materials Research Bulletin</i> , 2016, 76, 28-36.	2.7	5
25	Effects of size of nickel powder additive on the low-temperature electrochemical performances and kinetics parameters of AB5-type hydrogen storage alloy for negative electrode in Ni/MH battery. <i>Journal of Alloys and Compounds</i> , 2016, 660, 289-296.	2.8	35
26	Effects of Al content on the electrochemical properties of La _{0.78} Ce _{0.22} Ni _{3.95-x} Co _{0.65} Mn _{0.3} Si _{0.1} Al _x alloys at 20-80°C. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 10200-10210.	3.8	23
27	Influence factors of capacity loss after short-time standing of metal-hydride electrode and its EIS model. <i>Journal of Rare Earths</i> , 2013, 31, 772-777.	2.5	3