

Qi Yang

List of Publications by Year in descending order

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29994

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all docs

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docs citations

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times ranked

6250
citing authors

#	ARTICLE	IF	CITATIONS
1	Dendrites in Zn-Based Batteries. <i>Advanced Materials</i> , 2020, 32, e2001854.	11.1	601
2	Voltage issue of aqueous rechargeable metal-ion batteries. <i>Chemical Society Reviews</i> , 2020, 49, 180-232.	18.7	522
3	Do Zinc Dendrites Exist in Neutral Zinc Batteries: A Developed Electrohealing Strategy to In Situ Rescue In-Service Batteries. <i>Advanced Materials</i> , 2019, 31, e1903778.	11.1	494
4	Hydrogel Electrolytes for Flexible Aqueous Energy Storage Devices. <i>Advanced Functional Materials</i> , 2018, 28, 1804560.	7.8	433
5	Activating Coordinated Iron of Iron Hexacyanoferrate for Zn Hybrid-Ion Batteries with 10 000-Cycle Lifespan and Superior Rate Capability. <i>Advanced Materials</i> , 2019, 31, e1901521.	11.1	363
6	Single-Site Active Iron-Based Bifunctional Oxygen Catalyst for a Compressible and Rechargeable Zinc-Air Battery. <i>ACS Nano</i> , 2018, 12, 1949-1958.	7.3	336
7	Superstretchable Zinc-Air Batteries Based on an Alkaline-Tolerant Dual-Network Hydrogel Electrolyte. <i>Advanced Energy Materials</i> , 2019, 9, 1803046.	10.2	287
8	Hydrogen-Substituted Graphdiyne Ion Tunnels Directing Concentration Redistribution for Commercial-Grade Dendrite-Free Zinc Anodes. <i>Advanced Materials</i> , 2020, 32, e2001755.	11.1	261
9	Engineering hollow polyhedrons structured from carbon-coated CoSe_2 nanospheres bridged by CNTs with boosted sodium storage performance. <i>Journal of Materials Chemistry A</i> , 2017, 5, 13591-13600.	5.2	225
10	A Wholly Degradable, Rechargeable $\text{Zn-Ti}_3\text{C}_2$ MXene Capacitor with Superior Anti-Self-Discharge Function. <i>ACS Nano</i> , 2019, 13, 8275-8283.	7.3	224
11	Insight on Organic Molecules in Aqueous Zn-Ion Batteries with an Emphasis on the Zn Anode Regulation. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	208
12	Pd doping-weakened intermediate adsorption to promote electrocatalytic nitrate reduction on TiO_2 nanoarrays for ammonia production and energy supply with zinc-nitrate batteries. <i>Energy and Environmental Science</i> , 2021, 14, 3938-3944.	15.6	204
13	A Nanofibrillated Cellulose/Polyacrylamide Electrolyte-Based Flexible and Sewable High-Performance Zn-MnO_2 Battery with Superior Shear Resistance. <i>Small</i> , 2018, 14, e1803978.	5.2	191
14	Initiating Hexagonal MoO_3 for Superstable and Fast NH_4^+ Storage Based on Hydrogen Bond Chemistry. <i>Advanced Materials</i> , 2020, 32, e1907802.	11.1	186
15	A Highly Elastic and Reversibly Stretchable All-Polymer Supercapacitor. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 15707-15711.	7.2	181
16	Phase Transition Induced Unusual Electrochemical Performance of V_2CT_x MXene for Aqueous Zinc Hybrid-Ion Battery. <i>ACS Nano</i> , 2020, 14, 541-551.	7.3	179
17	A mechanically durable and device-level tough Zn-MnO ₂ battery with high flexibility. <i>Energy Storage Materials</i> , 2019, 23, 636-645.	9.5	159
18	Binder-free hierarchical VS_2 electrodes for high-performance aqueous Zn ion batteries towards commercial level mass loading. <i>Journal of Materials Chemistry A</i> , 2019, 7, 16330-16338.	5.2	152

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19	Grafted MXene/polymer electrolyte for high performance solid zinc batteries with enhanced shelf life at low/high temperatures. Energy and Environmental Science, 2021, 14, 3492-3501.	15.6	152
20	A Universal Principle to Design Reversible Aqueous Batteries Based on Deposition–Dissolution Mechanism. Advanced Energy Materials, 2019, 9, 1901838.	10.2	151
21	Phosphorene as Cathode Material for High-Voltage, Anti-Self-Discharge Zinc Ion Hybrid Capacitors. Advanced Energy Materials, 2020, 10, 2001024.	10.2	149
22	Highly Efficient Electrochemical Reduction of Nitrogen to Ammonia on Surface Termination Modified Ti ₃ C ₂ T _x MXene Nanosheets. ACS Nano, 2020, 14, 9089-9097.	7.3	137
23	Toward a Practical Zn Powder Anode: Ti ₃ C ₂ T _x MXene as a Lattice-Match Electrons/Ions Redistributor. ACS Nano, 2021, 15, 14631-14642.	7.3	137
24	A Flexible Solid-State Aqueous Zinc Hybrid Battery with Flat and High-Voltage Discharge Plateau. Advanced Energy Materials, 2019, 9, 1902473.	10.2	136
25	Recent Progress of MXene-Based Nanomaterials in Flexible Energy Storage and Electronic Devices. Energy and Environmental Materials, 2018, 1, 183-195.	7.3	135
26	Dendrites issues and advances in Zn anode for aqueous rechargeable Zn-based batteries. EcoMat, 2020, 2, e12035.	6.8	135
27	A smart safe rechargeable zinc ion battery based on sol-gel transition electrolytes. Science Bulletin, 2018, 63, 1077-1086.	4.3	134
28	Activating the I ⁰ /I ⁺ redox couple in an aqueous I ₂ –Zn battery to achieve a high voltage plateau. Energy and Environmental Science, 2021, 14, 407-413.	15.6	129
29	In Situ Electrochemical Synthesis of MXenes without Acid/Alkali Usage in/for an Aqueous Zinc Ion Battery. Advanced Energy Materials, 2020, 10, 2001791.	10.2	128
30	Vertically Aligned Sn ⁴⁺ Preintercalated Ti ₂ CT _X MXene Sphere with Enhanced Zn Ion Transportation and Superior Cycle Lifespan. Advanced Energy Materials, 2020, 10, 2001394.	10.2	127
31	Stabilizing Interface pH by N-Modified Graphdiyne for Dendrite-Free and High-Rate Aqueous Zn-Ion Batteries. Angewandte Chemie - International Edition, 2022, 61, .	7.2	124
32	Effects of Anion Carriers on Capacitance and Self-Discharge Behaviors of Zinc Ion Capacitors. Angewandte Chemie - International Edition, 2021, 60, 1011-1021.	7.2	122
33	Calendar Life of Zn Batteries Based on Zn Anode with Zn Powder/Current Collector Structure. Advanced Energy Materials, 2021, 11, 2003931.	10.2	122
34	Enhanced Redox Kinetics and Duration of Aqueous I ₂ /I [•] Conversion Chemistry by MXene Confinement. Advanced Materials, 2021, 33, e2006897.	11.1	121
35	Porous single-crystal NaTi ₂ (PO ₄) ₃ via liquid transformation of TiO ₂ nanosheets for flexible aqueous Na-ion capacitor. Nano Energy, 2018, 50, 623-631.	8.2	110
36	Efficient Ammonia Electrosynthesis and Energy Conversion through a Zn–Nitrate Battery by Iron Doping Engineered Nickel Phosphide Catalyst. Advanced Energy Materials, 2022, 12, .	10.2	108

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37	Energy density issues of flexible energy storage devices. <i>Energy Storage Materials</i> , 2020, 28, 264-292.	9.5	106
38	Highly Compressible Cross-Linked Polyacrylamide Hydrogel-Enabled Compressible Zn ₂ MnO ₂ Battery and a Flexible Battery-Sensor System. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 44527-44534.	4.0	105
39	Aqueous Zinc-Tellurium Batteries with Ultraflat Discharge Plateau and High Volumetric Capacity. <i>Advanced Materials</i> , 2020, 32, e2001469.	11.1	104
40	Manipulating anion intercalation enables a high-voltage aqueous dual ion battery. <i>Nature Communications</i> , 2021, 12, 3106.	5.8	104
41	Design and Fabrication of Hierarchical NiCo-MOF Heterostructure with Enhanced Pseudocapacitive Properties. <i>Small</i> , 2021, 17, e2100353.	5.2	101
42	Zinc/selenium conversion battery: a system highly compatible with both organic and aqueous electrolytes. <i>Energy and Environmental Science</i> , 2021, 14, 2441-2450.	15.6	93
43	Lattice Matching and Halogen Regulation for Synergistically Induced Uniform Zinc Electrodeposition by Halogenated Ti ₃ C ₂ MXenes. <i>ACS Nano</i> , 2022, 16, 813-822.	7.3	90
44	Initiating a Reversible Aqueous Zn/Sulfur Battery through a Liquid Film. <i>Advanced Materials</i> , 2020, 32, e2003070.	11.1	88
45	Inhibiting Grain Pulverization and Sulfur Dissolution of Bismuth Sulfide by Ionic Liquid Enhanced Poly(3,4-ethylenedioxythiophene):Poly(styrenesulfonate) for High-Performance Zinc-Ion Batteries. <i>ACS Nano</i> , 2019, 13, 7270-7280.	7.3	81
46	A Usage Scenario Independent Air Chargeable Flexible Zinc Ion Energy Storage Device. <i>Advanced Energy Materials</i> , 2019, 9, 1900509.	10.2	80
47	Confining Aqueous Zn-Br Halide Redox Chemistry by Ti ₃ C ₂ T _X MXene. <i>ACS Nano</i> , 2021, 15, 1718-1726.	7.3	78
48	Commencing an Acidic Battery Based on a Copper Anode with Ultrafast Proton-Regulated Kinetics and Superior Dendrite-Free Property. <i>Advanced Materials</i> , 2019, 31, e1905873.	11.1	77
49	Intrinsic voltage plateau of a Nb ₂ C _{T_X} MXene cathode in an aqueous electrolyte induced by high-voltage scanning. <i>Joule</i> , 2021, 5, 2993-3005.	11.7	74
50	Hydrated hybrid vanadium oxide nanowires as the superior cathode for aqueous Zn battery. <i>Materials Today Energy</i> , 2019, 14, 100361.	2.5	67
51	Freeze-Tolerant Hydrogel Electrolyte with High Strength for Stable Operation of Flexible Zinc-Ion Hybrid Supercapacitors. <i>Small</i> , 2022, 18, e2200055.	5.2	67
52	Anion chemistry enabled positive valence conversion to achieve a record high-voltage organic cathode for zinc batteries. <i>CheM</i> , 2022, 8, 2204-2216.	5.8	65
53	Stretchable Energy Storage Devices: From Materials and Structural Design to Device Assembly. <i>Advanced Energy Materials</i> , 2021, 11, 2003308.	10.2	61
54	<i>In situ</i> formation of NaTi ₂ (PO ₄) ₃ cubes on Ti ₃ C ₂ MXene for dual-mode sodium storage. <i>Journal of Materials Chemistry A</i> , 2018, 6, 18525-18532.	5.2	60

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55	High-Voltage Organic Cathodes for Zinc-Ion Batteries through Electron Cloud and Solvation Structure Regulation. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	60
56	Small-Dipole-Molecule-Containing Electrolytes for High-Voltage Aqueous Rechargeable Batteries. <i>Advanced Materials</i> , 2022, 34, e2106180.	11.1	58
57	Ni ₃ S ₂ /Ni nanosheet arrays for high-performance flexible zinc hybrid batteries with evident two-stage charge and discharge processes. <i>Journal of Materials Chemistry A</i> , 2019, 7, 18915-18924.	5.2	55
58	Recent Advances in Electrode Fabrication for Flexible Energy-Storage Devices. <i>Advanced Materials Technologies</i> , 2019, 4, 1900083.	3.0	54
59	A manganese hexacyanoferrate framework with enlarged ion tunnels and two-species redox reaction for aqueous Al-ion batteries. <i>Nano Energy</i> , 2021, 84, 105945.	8.2	54
60	A rechargeable Al-N ₂ battery for energy storage and highly efficient N ₂ fixation. <i>Energy and Environmental Science</i> , 2020, 13, 2888-2895.	15.6	53
61	Human joint-inspired structural design for a bendable/foldable/stretchable/twistable battery: achieving multiple deformabilities. <i>Energy and Environmental Science</i> , 2021, 14, 3599-3608.	15.6	49
62	Conversion-Type Nonmetal Elemental Tellurium Anode with High Utilization for Mild/Alkaline Zinc Batteries. <i>Advanced Materials</i> , 2021, 33, e2105426.	11.1	48
63	Metal-Tellurium Batteries: A Rising Energy Storage System. <i>Small Structures</i> , 2020, 1, 2000005.	6.9	46
64	Categorizing wearable batteries: Unidirectional and omnidirectional deformable batteries. <i>Matter</i> , 2021, 4, 3146-3160.	5.0	44
65	A Highly Elastic and Reversibly Stretchable All-Polymer Supercapacitor. <i>Angewandte Chemie</i> , 2019, 131, 15854-15858.	1.6	42
66	Toward Multifunctional and Wearable Smart Skins with Energy-Harvesting, Touch-Sensing, and Exteroception-Visualizing Capabilities by an All-Polymer Design. <i>Advanced Electronic Materials</i> , 2019, 5, 1900553.	2.6	41
67	Metal-Tuned Acetylene Linkages in Hydrogen Substituted Graphdiyne Boosting the Electrochemical Oxygen Reduction. <i>Small</i> , 2020, 16, e1907341.	5.2	39
68	High-Energy Aqueous Magnesium Hybrid Full Batteries Enabled by Carrier-Hosting Potential Compensation. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 5443-5452.	7.2	37
69	Regulating nitrogenous adsorption and desorption on Pd clusters by the acetylene linkages of hydrogen substituted graphdiyne for efficient electrocatalytic ammonia synthesis. <i>Nano Energy</i> , 2021, 86, 106099.	8.2	34
70	Two-Electron Redox Chemistry Enabled High-Performance Iodide-Ion Conversion Battery. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	34
71	Cathode Engineering for High Energy Density Aqueous Zn Batteries. <i>Accounts of Materials Research</i> , 2022, 3, 78-88.	5.9	32
72	Rechargeable Aqueous Mn-Metal Battery Enabled by Inorganic-Organic Interfaces. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	31

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73	Tellurium: A High-Performance Cathode for Magnesium Ion Batteries Based on a Conversion Mechanism. <i>ACS Nano</i> , 2022, 16, 5349-5357.	7.3	28
74	Strategies of binder design for high-performance lithium-ion batteries: a mini review. <i>Rare Metals</i> , 2022, 41, 745-761.	3.6	26
75	Stabilizing Interface pH by Na ⁺ -Modified Graphdiyne for Dendrite-Free and High-Rate Aqueous Zn-Ion Batteries. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	24
76	Mechanistic Study of Interfacial Modification for Stable Zn Anode Based on a Thin Separator. <i>Small</i> , 2022, 18, e2201045.	5.2	24
77	Effects of Anion Carriers on Capacitance and Self-Discharge Behaviors of Zinc Ion Capacitors. <i>Angewandte Chemie</i> , 2021, 133, 1024-1034.	1.6	21
78	High-Voltage Organic Cathodes for Zinc-Ion Batteries through Electron Cloud and Solvation Structure Regulation. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	20
79	Synthesis of 3D Flower-Like Nanocomposites of Nitrogen-Doped Carbon Nanosheets Embedded with Hollow Cobalt(II,III) Oxide Nanospheres for Lithium Storage. <i>ChemElectroChem</i> , 2017, 4, 102-108.	1.7	13
80	High-Energy Aqueous Magnesium Hybrid Full Batteries Enabled by Carrier-Hosting Potential Compensation. <i>Angewandte Chemie</i> , 2021, 133, 5503-5512.	1.6	13
81	Synthesis of polypyridyl ruthenium complexes with 2-(1-aryl)-1H-imidazo[4,5-f]-1,10-phenanthroline ligand and its application for luminescent oxygen sensing. <i>Frontiers of Chemistry in China: Selected Publications From Chinese Universities</i> , 2010, 5, 193-199.	0.4	8
82	Two-Electron Redox Chemistry Enabled High-Performance Iodide-Ion Conversion Battery. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	4
83	Facile one-step synthesis of highly graphitized hierarchical porous carbon nanosheets with large surface area and high capacity for lithium storage. <i>RSC Advances</i> , 2016, 6, 51146-51152.	1.7	2
84	Rechargeable Aqueous Mn-Metal Battery Enabled by Inorganic-Organic Interfaces. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	0