Advanced rechargeable zinc-based batteries: Recent pro

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Citation Report

#	Article	IF	CITATIONS
1	Recent Progress in the Electrolytes of Aqueous Zincâ€lon Batteries. Chemistry - A European Journal, 2019, 25, 14480-14494.	1.7	312
2	High-performing rechargeable/flexible zinc-air batteries by coordinated hierarchical Bi-metallic electrocatalyst and heterostructure anion exchange membrane. Nano Energy, 2019, 65, 104021.	8.2	62
3	Recent Progress on Zinc-Ion Rechargeable Batteries. Nano-Micro Letters, 2019, 11, 90.	14.4	191
4	High-Power and Ultralong-Life Aqueous Zinc-Ion Hybrid Capacitors Based on Pseudocapacitive Charge Storage. Nano-Micro Letters, 2019, 11, 94.	14.4	108
5	Building better zinc-ion batteries: A materials perspective. EnergyChem, 2019, 1, 100022.	10.1	153
6	Direct Conversion of Biomass into Compact Air Electrode with Atomically Dispersed Oxygen and Nitrogen Coordinated Copper Species for Flexible Zinc–Air Batteries. ACS Applied Energy Materials, 2019, 2, 8659-8666.	2.5	16
7	A self-reconstructed (oxy)hydroxide@nanoporous metal phosphide electrode for high-performance rechargeable zinc batteries. Journal of Materials Chemistry A, 2019, 7, 21069-21078.	5.2	27
8	An inorganic salt reinforced Zn ²⁺ -conducting solid-state electrolyte for ultra-stable Zn metal batteries. Journal of Materials Chemistry A, 2019, 7, 22287-22295.	5.2	62
9	Recent advances in flexible aqueous zinc-based rechargeable batteries. Nanoscale, 2019, 11, 17992-18008.	2.8	83
10	Al2O3 Coatings on Zinc for Anti-Corrosion in Alkaline Solution by Electrospinning. Coatings, 2019, 9, 692.	1.2	20
11	An Alumina/Polyacrylonitrile Nanofibrous Composite Separator via High-Efficiency Electro-Blown Spinning and Wet-Laid Technologies for Improved Lithium-Ion Batteries. Journal of the Electrochemical Society, 2019, 166, A4088-A4096.	1.3	13
12	Environmental Stability of MXenes as Energy Storage Materials. Frontiers in Materials, 2019, 6, .	1.2	65
13	Polymers for supercapacitors: Boosting the development of the flexible and wearable energy storage. Materials Science and Engineering Reports, 2020, 139, 100520.	14.8	145
14	Antifreezing Hydrogel with High Zinc Reversibility for Flexible and Durable Aqueous Batteries by Cooperative Hydrated Cations. Advanced Functional Materials, 2020, 30, 1907218.	7.8	209
15	All-solid-state flexible zinc-air battery with polyacrylamide alkaline gel electrolyte. Journal of Power Sources, 2020, 450, 227653.	4.0	108
16	Rechargeable Zn-ion batteries with high power and energy densities: a two-electron reaction pathway in birnessite MnO ₂ cathode materials. Journal of Materials Chemistry A, 2020, 8, 1975-1985.	5.2	99
17	Aging-aware co-optimization of battery size, depth of discharge, and energy management for plug-in hybrid electric vehicles. Journal of Power Sources, 2020, 450, 227638.	4.0	63
18	Quasi-solid single Zn-ion conductor with high conductivity enabling dendrite-free Zn metal anode. Energy Storage Materials, 2020, 27, 1-8.	9.5	91

#	Article	IF	CITATIONS
19	Electrode Composite for Flexible Zinc–Manganese Dioxide Batteries through In Situ Polymerization of Polymer Hydrogel. Energy Technology, 2020, 8, 1901165.	1.8	10
20	Emerging Layered Metallic Vanadium Disulfide for Rechargeable Metalâ€Ion Batteries: Progress and Opportunities. ChemSusChem, 2020, 13, 1172-1202.	3.6	27
21	Shape-controlled growth of three-dimensional flower-like ZnO@Ag composite and its outstanding electrochemical performance for Ni-Zn secondary batteries. Journal of Colloid and Interface Science, 2020, 562, 518-528.	5.0	33
22	Binder-Free Centimeter-Long V2O5 Nanofibers on Carbon Cloth as Cathode Material for Zinc-Ion Batteries. Energies, 2020, 13, 31.	1.6	43
23	Contribution of Cation Addition to MnO2 Nanosheets on Stable Co3O4 Nanowires for Aqueous Zinc-Ion Battery. Frontiers in Chemistry, 2020, 8, 793.	1.8	18
24	MCM-41/PVA Composite as a Separator for Zinc–Air Batteries. International Journal of Molecular Sciences, 2020, 21, 7052.	1.8	11
25	Recent advances of transition metal based bifunctional electrocatalysts for rechargeable zinc-air batteries. Journal of Power Sources, 2020, 477, 228696.	4.0	56
26	Transient simulation of porous cathodes of zinc-nickel single-flow batteries based on lattice Boltzmann method. Journal of Energy Storage, 2020, 32, 101937.	3.9	5
27	Energy Storage Chemistry in Aqueous Zinc Metal Batteries. ACS Energy Letters, 2020, 5, 3569-3590.	8.8	163
28	Cellulose Nanofiber/Carbon Nanotubeâ€Based Bicontinuous Ion/Electron Conduction Networks for Highâ€Performance Aqueous Znâ€Ion Batteries. Small, 2020, 16, e2002837.	5.2	25
29	Understanding the Design Principles of Advanced Aqueous Zincâ€lon Battery Cathodes: From Transport Kinetics to Structural Engineering, and Future Perspectives. Advanced Energy Materials, 2020, 10, 2002354.	10.2	193
30	Massâ€Producible, Quasiâ€Zeroâ€&train, Latticeâ€Waterâ€Rich Inorganic Openâ€Frameworks for Ultrafastâ€Charging and Longâ€Cycling Zincâ€Ion Batteries. Advanced Materials, 2020, 32, e2003592.	11.1	66
31	Long lifespan and high-rate Zn anode boosted by 3D porous structure and conducting network. Journal of Power Sources, 2020, 479, 228808.	4.0	43
32	Flexible quasi-solid-state aqueous Zn-based batteries: rational electrode designs for high-performance and mechanical flexibility. Materials Today Energy, 2020, 18, 100523.	2.5	42
33	Fundamentals and perspectives in developing zinc-ion battery electrolytes: a comprehensive review. Energy and Environmental Science, 2020, 13, 4625-4665.	15.6	497
34	Recent advances in developing organic electrode materials for multivalent rechargeable batteries. Energy and Environmental Science, 2020, 13, 3950-3992.	15.6	148
35	Metal–organic framework based bifunctional oxygen electrocatalysts for rechargeable zinc–air batteries: current progress and prospects. Chemical Science, 2020, 11, 11646-11671.	3.7	60
36	MnO2 Heterostructure on Carbon Nanotubes as Cathode Material for Aqueous Zinc-Ion Batteries. International Journal of Molecular Sciences, 2020, 21, 4689.	1.8	37

#	Article	IF	CITATIONS
38	Rational design of spinel oxides as bifunctional oxygen electrocatalysts for rechargeable Zn-air batteries. Chemical Physics Reviews, 2020, 1, .	2.6	28
39	Tetrapropylammonium Hydroxide as a Zinc Dendrite Growth Suppressor for Rechargeable Aqueous Battery. Frontiers in Energy Research, 2020, 8, .	1.2	10
40	Cu-MOF-derived and porous Cu0.26V2O5@C composite cathode for aqueous zinc-ion batteries. Sustainable Materials and Technologies, 2020, 26, e00236.	1.7	13
41	Electrochemical synthesis of Na0.25MnO2@ACC cathode and Zn@K-ACC anode for flexible quasi-solid-state zinc-ion battery with superior performance. Journal of Materials Science: Materials in Electronics, 2020, 31, 15943-15953.	1.1	5
42	Iron oxide loaded biochar/polyaniline nanocomposite: Synthesis, characterization and electrochemical analysis. Inorganic Chemistry Communication, 2020, 119, 108097.	1.8	20
43	3D Foam Anode and Hydrogel Electrolyte for Highâ€Performance and Stable Flexible Zinc–Air Battery. ChemistrySelect, 2020, 5, 8305-8310.	0.7	15
44	Influence of Ether Solvent and Anion Coordination on Electrochemical Behavior in Calcium Battery Electrolytes. ACS Applied Energy Materials, 2020, 3, 8437-8447.	2.5	37
45	Boosting Zn-Ion Storage Performance of Bronze-Type VO ₂ <i>via</i> Ni-Mediated Electronic Structure Engineering. ACS Applied Materials & Interfaces, 2020, 12, 36110-36118.	4.0	70
46	Defect Engineering in Manganeseâ€Based Oxides for Aqueous Rechargeable Zincâ€Ion Batteries: A Review. Advanced Energy Materials, 2020, 10, 2001769.	10.2	249
47	Enabling flexible solid-state Zn batteries via tailoring sulfur deficiency in bimetallic sulfide nanotube arrays. Nano Energy, 2020, 77, 105165.	8.2	65
48	Rational design of sustainable transition metal-based bifunctional electrocatalysts for oxygen reduction and evolution reactions. Sustainable Materials and Technologies, 2020, 25, e00204.	1.7	17
49	Properties enhancement of carboxymethyl cellulose with thermo-responsive polymer as solid polymer electrolyte for zinc ion battery. Scientific Reports, 2020, 10, 12587.	1.6	54
50	High-Performance Anti-freezing Flexible Zn-MnO2 Battery Based on Polyacrylamide/Graphene Oxide/Ethylene Glycol Gel Electrolyte. Frontiers in Chemistry, 2020, 8, 603.	1.8	45
51	Flexible magnesium-ionÂconducting polymer electrolyte membranes: mechanical, structural, thermal, and electrochemical impedance spectroscopic properties. Journal of Materials Science: Materials in Electronics, 2020, 31, 15013-15027.	1.1	14
52	Zn ion diffusion in spinel-type cathode materials for rechargeable batteries: the role of point defects. Materials Today Communications, 2020, 25, 101478.	0.9	12
53	Shallow-layer pillaring of a conductive polymer in monolithic grains to drive superior zinc storage <i>via</i> a cascading effect. Energy and Environmental Science, 2020, 13, 3149-3163.	15.6	57
54	A High Performing Znâ€lon Battery Cathode Enabled by In Situ Transformation of V ₂ O ₅ Atomic Layers. Angewandte Chemie, 2020, 132, 17152-17159.	1.6	33
55	Active Materials for Aqueous Zinc Ion Batteries: Synthesis, Crystal Structure, Morphology, and Electrochemistry. Chemical Reviews, 2020, 120, 7795-7866.	23.0	950

#	Article	IF	CITATIONS
56	A Metal–Organic Framework as a Multifunctional Ionic Sieve Membrane for Long‣ife Aqueous Zinc–Iodide Batteries. Advanced Materials, 2020, 32, e2004240.	11.1	222
57	Freeze-drying assisted biotemplated route to 3D mesoporous Na ₃ V ₂ (PO ₄) ₃ @NC composites as cathodes with high performance for sodium-ion batteries. Chemical Communications, 2020, 56, 11961-11964.	2.2	19
58	Dendrites in Znâ€Based Batteries. Advanced Materials, 2020, 32, e2001854.	11.1	601
59	2020 Roadmap on Zinc Metal Batteries. Chemistry - an Asian Journal, 2020, 15, 3696-3708.	1.7	26
60	<i>In Operando</i> Synchrotron Studies of NH ₄ ⁺ Preintercalated V ₂ O ₅ Â <i>n</i> H ₂ O Nanobelts as the Cathode Material for Aqueous Rechargeable Zinc Batteries. ACS Nano, 2020, 14, 11809-11820.	7.3	87
61	Deeply understanding the Zn anode behaviour and corresponding improvement strategies in different aqueous Zn-based batteries. Energy and Environmental Science, 2020, 13, 3917-3949.	15.6	480
62	Phosphorus/nitrogen co-doped and bimetallic MOF-derived cathode for all-solid-state rechargeable zinc–air batteries. RSC Advances, 2020, 10, 33327-33333.	1.7	11
63	Vanadiumâ€Based Materials as Positive Electrode for Aqueous Zincâ€ion Batteries. Advanced Sustainable Systems, 2020, 4, 2000178.	2.7	36
64	TowardÂmore efficient and stable bifunctional electrocatalysts for oxygen electrodes using FeCo2O4/carbon nanofiber prepared by electrospinning. Materials Today Energy, 2020, 18, 100508.	2.5	25
65	Challenges and Opportunities for Multivalent Metal Anodes in Rechargeable Batteries. Advanced Functional Materials, 2020, 30, 2004187.	7.8	80
66	Stable Hydrogel Electrolytes for Flexible and Submarine-Use Zn-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 46005-46014.	4.0	87
67	Modulating electrolyte structure for ultralow temperature aqueous zinc batteries. Nature Communications, 2020, 11, 4463.	5.8	431
68	Recent Advances of Emerging 2D MXene for Stable and Dendriteâ€Free Metal Anodes. Advanced Functional Materials, 2020, 30, 2004613.	7.8	140
69	Aqueous Zinc–Tellurium Batteries with Ultraflat Discharge Plateau and High Volumetric Capacity. Advanced Materials, 2020, 32, e2001469.	11.1	104
70	New Insights of Zn 2+ /Li + Hybrid Aqueous Batteries. Energy Technology, 2020, 8, 2000476.	1.8	6
71	Tailoring desolvation kinetics enables stable zinc metal anodes. Journal of Materials Chemistry A, 2020, 8, 19367-19374.	5.2	136
72	Metalâ€Tellurium Batteries: A Rising Energy Storage System. Small Structures, 2020, 1, 2000005.	6.9	46
73	Anode Materials for Aqueous Zinc Ion Batteries: Mechanisms, Properties, and Perspectives. ACS Nano, 2020. 14. 16321-16347.	7.3	340

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74	Binder-Free α-MnO2 Nanowires on Carbon Cloth as Cathode Material for Zinc-Ion Batteries. International Journal of Molecular Sciences, 2020, 21, 3113.	1.8	22
75	Stabilized Co ³⁺ /Co ⁴⁺ Redox Pair in In Situ Produced CoSe _{2â°} <i>_x</i> â€Derived Cobalt Oxides for Alkaline Zn Batteries with 10 000 ycle Lifespan and 1.9â€V Voltage Plateau. Advanced Energy Materials, 2020, 10, 2000892.	10.2	114
76	Hollow‧tructured Electrode Materials: Selfâ€Templated Synthesis and Their Potential in Secondary Batteries. ChemNanoMat, 2020, 6, 1298-1314.	1.5	6
77	A N, O co-doped hierarchical carbon cathode for high-performance Zn-ion hybrid supercapacitors with enhanced pseudocapacitance. Journal of Materials Chemistry A, 2020, 8, 11617-11625.	5.2	130
78	An Overview and Future Perspectives of Rechargeable Zinc Batteries. Small, 2020, 16, e2000730.	5.2	216
79	Rechargeable Aqueous Zincâ€lon Batteries with Mild Electrolytes: A Comprehensive Review. Batteries and Supercaps, 2020, 3, 966-1005.	2.4	68
80	Zinc ion trapping in a cellulose hydrogel as a solid electrolyte for a safe and flexible supercapacitor. Journal of Materials Chemistry A, 2020, 8, 12314-12318.	5.2	87
81	Electrochemical Activation of Manganeseâ€Based Cathode in Aqueous Zincâ€Ion Electrolyte. Advanced Functional Materials, 2020, 30, 2002711.	7.8	120
83	3D assembly of MXene-stabilized spinel ZnMn2O4 for highly durable aqueous zinc-ion batteries. Chemical Engineering Journal, 2020, 399, 125627.	6.6	140
84	An integrated configuration with robust interfacial contact for durable and flexible zinc ion batteries. Nano Energy, 2020, 74, 104905.	8.2	54
85	Dendrite-free Zn anode with dual channel 3D porous frameworks for rechargeable Zn batteries. Energy Storage Materials, 2020, 30, 104-112.	9.5	235
86	Principals and strategies for constructing a highly reversible zinc metal anode in aqueous batteries. Nano Energy, 2020, 74, 104880.	8.2	225
87	Nanostructure Design Strategies for Aqueous Zincâ€lon Batteries. ChemElectroChem, 2020, 7, 2957-2978.	1.7	44
88	Microstructure-tuned cobalt oxide electrodes for high-performance Zn–Co batteries. Electrochimica Acta, 2020, 353, 136535.	2.6	28
89	Electrochemical characterization of hollow urchin-like MnO2 as high-performance cathode for aqueous zinc ion batteries. Journal of Electroanalytical Chemistry, 2020, 871, 114242.	1.9	19
92	A High Performing Znâ€lon Battery Cathode Enabled by In Situ Transformation of V ₂ O ₅ Atomic Layers. Angewandte Chemie - International Edition, 2020, 59, 17004-17011.	7.2	158
93	Rechargeable alkaline zinc batteries: Progress and challenges. Energy Storage Materials, 2020, 31, 44-57.	9.5	139
94	Graphene Hydrogel Film Adsorbed with Redox-Active Molecule Toward Energy Storage Device with Improved Energy Density and Unfading Superior Rate Capability. ACS Sustainable Chemistry and Engineering, 2020, 8, 9896-9905.	3.2	19

#	Article	IF	CITATIONS
95	An Interfaceâ€Bridged Organic–Inorganic Layer that Suppresses Dendrite Formation and Side Reactions for Ultra‣ong‣ife Aqueous Zinc Metal Anodes. Angewandte Chemie, 2020, 132, 16737-16744.	1.6	52
96	The rise of aqueous rechargeable batteries with organic electrode materials. Journal of Materials Chemistry A, 2020, 8, 15479-15512.	5.2	90
97	A scalable top-down strategy toward practical metrics of Ni–Zn aqueous batteries with total energy densities of 165 W h kg ^{â''1} and 506 W h L ^{â''1} . Energy and Environmental Science, 2020, 13, 4157-4167.	15.6	142
98	Characterization of a new rechargeable Zn/PVA-KOH/Bi ₂ O ₃ battery: structural changes of the Bi ₂ O ₃ electrode. Sustainable Energy and Fuels, 2020, 4, 4497-4505.	2.5	6
99	An Interfaceâ€Bridged Organic–Inorganic Layer that Suppresses Dendrite Formation and Side Reactions for Ultraâ€Longâ€Life Aqueous Zinc Metal Anodes. Angewandte Chemie - International Edition, 2020, 59, 16594-16601.	7.2	270
100	Exploration of Advanced Electrode Materials for Approaching Highâ€Performance Nickelâ€Based Superbatteries. Small, 2020, 16, e2001340.	5.2	26
101	Challenges and Strategies for Constructing Highly Reversible Zinc Anodes in Aqueous Zincâ€lon Batteries: Recent Progress and Future Perspectives. Advanced Sustainable Systems, 2020, 4, 2000082.	2.7	81
102	Multicomponent hierarchical NiCo2O4@CoMoO4@Co3O4 arrayed structures for high areal energy density aqueous NiCo//Zn batteries. Energy Storage Materials, 2020, 31, 27-35.	9.5	62
103	Integration designs toward newâ€generation wearable energy supplyâ€sensor systems for realâ€ŧime health monitoring: A minireview. InformaAnÃ-Materiály, 2020, 2, 1109-1130.	8.5	35
104	Energy density issues of flexible energy storage devices. Energy Storage Materials, 2020, 28, 264-292.	9.5	106
105	Bioâ€Inspired Isoalloxazine Redox Moieties for Rechargeable Aqueous Zincâ€Ion Batteries. Chemistry - an Asian Journal, 2020, 15, 1290-1295.	1.7	31
106	Manganese-based bifunctional electrocatalysts for zinc-air batteries. Current Opinion in Electrochemistry, 2020, 21, 219-224.	2.5	16
107	Critical Factors Dictating Reversibility of the Zinc Metal Anode. Energy and Environmental Materials, 2020, 3, 516-521.	7.3	110
108	Highly stable Zn metal anodes enabled by atomic layer deposited Al ₂ O ₃ coating for aqueous zinc-ion batteries. Journal of Materials Chemistry A, 2020, 8, 7836-7846.	5.2	323
109	Activation of MnO hexagonal nanoplates via in situ electrochemical charging toward high-capacity and durable Zn-ion batteries. Applied Surface Science, 2020, 514, 145949.	3.1	40
110	Silver Decorated Reduced Graphene Oxide as Electrocatalyst for Zinc–Air Batteries. Energies, 2020, 13, 462.	1.6	32
111	Initiating a Reversible Aqueous Zn/Sulfur Battery through a "Liquid Film― Advanced Materials, 2020, 32, e2003070.	11.1	88
112	A strategy associated with conductive binder and 3D current collector for aqueous zinc-ion batteries with high mass loading, lournal of Electroanalytical Chemistry, 2020, 873, 114395.	1.9	13

#	Article	IF	CITATIONS
113	Boosting the Cycling Stability of Aqueous Flexible Zn Batteries via F Doping in Nickel–Cobalt Carbonate Hydroxide Cathode. Small, 2020, 16, e2001935.	5.2	54
114	Dendrites issues and advances in Zn anode for aqueous rechargeable Znâ€based batteries. EcoMat, 2020, 2, e12035.	6.8	135
115	Recent advances in architecture design of nanoarrays for flexible solid-state aqueous batteries. Nano Futures, 2020, 4, 032002.	1.0	15
116	Heterojunction induced activation of iron oxide anode for high-power aqueous batteries. Chemical Engineering Journal, 2020, 400, 125874.	6.6	21
117	Aromatic organic molecular crystal with enhanced π–π stacking interaction for ultrafast Zn-ion storage. Energy and Environmental Science, 2020, 13, 2515-2523.	15.6	166
118	Flexible Znâ€ion batteries based on manganese oxides: Progress and prospect. , 2020, 2, 387-407.		55
119	Recent Advances on Selfâ€Supported Arrayed Bifunctional Oxygen Electrocatalysts for Flexible Solidâ€State Zn–Air Batteries. Small, 2020, 16, e2002902.	5.2	95
120	Hierarchical NiSe ₂ Nanosheet Arrays as a Robust Cathode toward Superdurable and Ultrafast Ni–Zn Aqueous Batteries. ACS Applied Materials & Interfaces, 2020, 12, 34931-34940.	4.0	47
121	Progress on zinc ion hybrid supercapacitors: Insights and challenges. Energy Storage Materials, 2020, 31, 252-266.	9.5	141
122	Perspective—On the Need for Reliability and Safety Studies of Grid-Scale Aqueous Batteries. Journal of the Electrochemical Society, 2020, 167, 090545.	1.3	22
123	Design Principles for Dendrite Suppression with Porous Polymer/Aqueous Solution Hybrid Electrolyte for Zn Metal Anodes. ACS Energy Letters, 2020, 5, 2466-2474.	8.8	108
124	Polypyrrole-controlled plating/stripping for advanced zinc metal anodes. Materials Today Energy, 2020, 17, 100443.	2.5	40
125	Interfacial chemical binding and improved kinetics assisting stable aqueous Zn–MnO2 batteries. Materials Today Energy, 2020, 17, 100475.	2.5	53
126	An approaching-theoretical-capacity anode material for aqueous battery: Hollow hexagonal prism Bi2O3 assembled by nanoparticles. Energy Storage Materials, 2020, 28, 82-90.	9.5	109
127	All-Metal Phosphide Electrodes for High-Performance Quasi-Solid-State Fiber-Shaped Aqueous Rechargeable Ni–Fe Batteries. ACS Applied Materials & Interfaces, 2020, 12, 12801-12808.	4.0	30
128	Self-Recovery Chemistry and Cobalt-Catalyzed Electrochemical Deposition of Cathode for Boosting Performance of Aqueous Zinc-Ion Batteries. IScience, 2020, 23, 100943.	1.9	83
129	Hydrogenâ€Free and Dendriteâ€Free Allâ€Solidâ€State Znâ€Ion Batteries. Advanced Materials, 2020, 32, e1908	1211.1	381
130	Nafion Ionomer-Based Single Component Electrolytes for Aqueous Zn/MnO ₂ Batteries with Long Cycle Life. ACS Sustainable Chemistry and Engineering, 2020, 8, 5040-5049.	3.2	37

#	Article	IF	CITATIONS
131	Zn/MnO2 battery chemistry with dissolution-deposition mechanism. Materials Today Energy, 2020, 16, 100396.	2.5	245
132	A zinc battery with ultra-flat discharge plateau through phase transition mechanism. Nano Energy, 2020, 71, 104583.	8.2	75
133	Initiating a wide-temperature-window yarn zinc ion battery by a highly conductive iongel. Materials Today Energy, 2020, 16, 100372.	2.5	19
134	Oxygen vacancies-rich Ce0.9Gd0.1O2-δ decorated Pr0.5Ba0.5CoO3-δ bifunctional catalyst for efficient and long-lasting rechargeable Zn-air batteries. Applied Catalysis B: Environmental, 2020, 266, 118656.	10.8	87
135	Research Frontiers in Energyâ€Related Materials and Applications for 2020–2030. Advanced Sustainable Systems, 2020, 4, 1900145.	2.7	30
136	Strongly coupled zinc manganate nanodots and graphene composite as an advanced cathode material for aqueous zinc ion batteries. Ceramics International, 2020, 46, 11237-11245.	2.3	33
137	Effect of Mg(CF3SO3)2 concentration on structural and electrochemical properties of ionic liquid incorporated polymer electrolyte membranes. Journal of Solid State Electrochemistry, 2020, 24, 655-665.	1.2	18
138	Flexible and anti-freezing quasi-solid-state zinc ion hybrid supercapacitors based on pencil shavings derived porous carbon. Energy Storage Materials, 2020, 28, 307-314.	9.5	279
139	2D V2O5 nanosheets as a binder-free high-energy cathode for ultrafast aqueous and flexible Zn-ion batteries. Nano Energy, 2020, 70, 104573.	8.2	237
140	In-situ probing phase evolution and electrochemical mechanism of ZnMn2O4 nanoparticles anchored on porous carbon polyhedrons in high-performance aqueous Zn-ion batteries. Journal of Power Sources, 2020, 452, 227826.	4.0	52
141	Chemically resistant Cu–Zn/Zn composite anode for long cycling aqueous batteries. Energy Storage Materials, 2020, 27, 205-211.	9.5	307
142	Scalable gas-phase synthesis of 3D microflowers confining MnO2 nanowires for highly-durable aqueous zinc-ion batteries. Journal of Power Sources, 2020, 463, 228209.	4.0	40
143	Hybrid battery integrated by Zn-air and Zn-Co3O4 batteries at cell level. Journal of Energy Chemistry, 2020, 49, 375-383.	7.1	24
144	Ultrasmall NiFe layered double hydroxide strongly coupled on atomically dispersed FeCo-NC nanoflowers as efficient bifunctional catalyst for rechargeable Zn-air battery. Science China Materials, 2020, 63, 1182-1195.	3.5	44
145	Flexible self-supported bi-metal electrode as a highly stable carbon- and binder-free cathode for large-scale solid-state zinc-air batteries. Applied Catalysis B: Environmental, 2020, 272, 118953.	10.8	62
146	Scientific Challenges for the Implementation of Zn-Ion Batteries. Joule, 2020, 4, 771-799.	11.7	1,164
147	Electrode Materials for Practical Rechargeable Aqueous Znâ€ion Batteries: Challenges and Opportunities. ChemElectroChem, 2020, 7, 2714-2734.	1.7	54
148	A Chemically Polished Zinc Metal Electrode with a Ridge-like Structure for Cycle-Stable Aqueous Batteries. ACS Applied Materials & Interfaces, 2020, 12, 23028-23034.	4.0	65

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149	Hierarchical Carbon Microtube@Nanotube Core–Shell Structure for High-Performance Oxygen Electrocatalysis and Zn–Air Battery. Nano-Micro Letters, 2020, 12, 97.	14.4	57
150	Hierarchical peony-like FeCo-NC with conductive network and highly active sites as efficient electrocatalyst for rechargeable Zn-air battery. Nano Research, 2020, 13, 1090-1099.	5.8	77
151	Redirected Zn Electrodeposition by an Antiâ€Corrosion Elastic Constraint for Highly Reversible Zn Anodes. Advanced Functional Materials, 2021, 31, 2001867.	7.8	216
152	Promise and challenge of vanadium-based cathodes for aqueous zinc-ion batteries. Journal of Energy Chemistry, 2021, 54, 655-667.	7.1	122
153	Recent advances in energy storage mechanism of aqueous zinc-ion batteries. Journal of Energy Chemistry, 2021, 54, 712-726.	7.1	211
154	Molten salt synthesis of α-MnO2/Mn2O3 nanocomposite as a high-performance cathode material for aqueous zinc-ion batteries. Journal of Energy Chemistry, 2021, 54, 475-481.	7.1	56
155	Developing improved electrolytes for aqueous zinc-ion batteries to achieve excellent cyclability and antifreezing ability. Journal of Colloid and Interface Science, 2021, 586, 362-370.	5.0	48
156	Earth-abundant coal-derived carbon nanotube/carbon composites as efficient bifunctional oxygen electrocatalysts for rechargeable zinc-air batteries. Journal of Energy Chemistry, 2021, 56, 87-97.	7.1	32
157	Understanding the Gap between Academic Research and Industrial Requirements in Rechargeable Zinc″on Batteries. Batteries and Supercaps, 2021, 4, 60-71.	2.4	32
158	Suppressing by-product via stratified adsorption effect to assist highly reversible zinc anode in aqueous electrolyte. Journal of Energy Chemistry, 2021, 55, 549-556.	7.1	132
159	Perforated two-dimensional nanoarchitectures for next-generation batteries: Recent advances and extensible perspectives. Progress in Materials Science, 2021, 116, 100716.	16.0	30
160	Electrolyte formulation to enable ultra-stable aqueous Zn-organic batteries. Journal of Power Sources, 2021, 482, 228904.	4.0	24
161	Review of vanadium-based electrode materials for rechargeable aqueous zinc ion batteries. Journal of Energy Chemistry, 2021, 56, 223-237.	7.1	155
162	Non-metallic charge carriers for aqueous batteries. Nature Reviews Materials, 2021, 6, 109-123.	23.3	250
163	Pencil Drawing Stable Interface for Reversible and Durable Aqueous Zincâ€Ion Batteries. Advanced Functional Materials, 2021, 31, 2006495.	7.8	153
164	Tuning Zn2+ coordination environment to suppress dendrite formation for high-performance Zn-ion batteries. Nano Energy, 2021, 80, 105478.	8.2	318
165	Rechargeable Sodiumâ€Based Hybrid Metalâ€Ion Batteries toward Advanced Energy Storage. Advanced Functional Materials, 2021, 31, 2006457.	7.8	39
166	Co ₃ S ₄ Nanosheets on Carbon Cloth as Free-Standing Anode with Improved Pseudocapacitive Storage for High-Performance Li-Ion Batteries. Nano, 2021, 16, 2150007.	0.5	1

#	ARTICLE	IF	CITATIONS
167	(Fe,Co)/Nâ€Doped Multiâ€Walled Carbon Nanotubes as Efficient Bifunctional Electrocatalysts for Rechargeable Zincâ€Air Batteries. ChemCatChem, 2021, 13, 1023-1033.	1.8	22
168	Challenges and strategies for ultrafast aqueous zinc-ion batteries. Rare Metals, 2021, 40, 309-328.	3.6	115
169	A facile controlled synthesis of 3D cobalt nanoparticle-embedded nitrogen-doped carbon materials towards efficient bifunctional electrocatalysts for rechargeable Zn-air batteries. Journal of Alloys and Compounds, 2021, 861, 157976.	2.8	9
170	Highâ€Energy Aqueous Magnesium Hybrid Full Batteries Enabled by Carrierâ€Hosting Potential Compensation. Angewandte Chemie, 2021, 133, 5503-5512.	1.6	13
171	Hydrated vanadium pentoxide/reduced graphene oxide-polyvinyl alcohol (V2O5â‹nH2O/rGO-PVA) film as a binder-free electrode for solid-state Zn-ion batteries. Journal of Colloid and Interface Science, 2021, 587, 845-854.	5.0	56
172	Defect Electrocatalysts and Alkaline Electrolyte Membranes in Solidâ€State Zinc–Air Batteries: Recent Advances, Challenges, and Future Perspectives. Small Methods, 2021, 5, e2000868.	4.6	42
173	Highâ€Energy Aqueous Magnesium Hybrid Full Batteries Enabled by Carrierâ€Hosting Potential Compensation. Angewandte Chemie - International Edition, 2021, 60, 5443-5452.	7.2	37
174	Ni(OH)2 cathode with oxygen vacancies induced from electroxidizing Ni3S2 nanosheets for aqueous rechargeable Ni–Zn battery. Journal of Alloys and Compounds, 2021, 855, 157488.	2.8	16
175	Recent advances and future perspectives in engineering of bifunctional electrocatalysts for rechargeable zinc–air batteries. Materials Today Advances, 2021, 9, 100116.	2.5	40
176	Microemulsion synthesis of 3D flower-like calcium zincate anode materials with superior high-rate and cycling property for advanced zinc-based batteries. Journal of Alloys and Compounds, 2021, 853, 156965.	2.8	9
177	Unravel the influences of Ni substitution on Co-based electrodes for rechargeable alkaline Zn–Co batteries. Journal of Power Sources, 2021, 483, 229192.	4.0	27
178	Tuning electronic structure endows 1,4-naphthoquinones with significantly boosted Zn-ion storage capability and output voltage. Journal of Power Sources, 2021, 483, 229114.	4.0	16
179	Microstructural Engineering of Cathode Materials for Advanced Zincâ€Ion Aqueous Batteries. Advanced Science, 2021, 8, 2002722.	5.6	58
180	Recent Developments of Preintercalated Cathodes for Rechargeable Aqueous Zn″on Batteries. Energy Technology, 2021, 9, 2000829.	1.8	12
181	Zinc Metal Energy Storage Devices under Extreme Conditions of Low Temperatures. Batteries and Supercaps, 2021, 4, 389-406.	2.4	23
182	Green and low-cost acetate-based electrolytes for the highly reversible zinc anode. Journal of Power Sources, 2021, 485, 229329.	4.0	37
183	Aluminum-doping-based method for the improvement of the cycle life of cobalt–nickel hydroxides for nickel–zinc batteries. Journal of Colloid and Interface Science, 2021, 587, 693-702.	5.0	31
184	Exploring Aluminumâ€lon Insertion into Magnesiumâ€Doped Manjiroite (MnO ₂) Nanorods in Aqueous Solution. ChemElectroChem, 2021, 8, 1048-1054.	1.7	9

#	Article	IF	CITATIONS
185	Recent Advances and Perspectives of Znâ€Metal Free "Rockingâ€Chairâ€â€Type Znâ€lon Batteries. Advanced Energy Materials, 2021, 11, 2002529.	10.2	111
186	Opportunities of Aqueous Manganeseâ€Based Batteries with Deposition and Stripping Chemistry. Advanced Energy Materials, 2021, 11, 2002904.	10.2	107
187	Stretchable Energy Storage Devices: From Materials and Structural Design to Device Assembly. Advanced Energy Materials, 2021, 11, 2003308.	10.2	61
188	Zn electrode/electrolyte interfaces of Zn batteries: A mini review. Electrochemistry Communications, 2021, 122, 106898.	2.3	57
189	Materials and Structure Design for Solid-State Zinc-Ion Batteries: A Mini-Review. Frontiers in Energy Research, 2021, 8, .	1.2	19
190	Enhanced zinc storage performance of mixed valent manganese oxide for flexible coaxial fiber zinc-ion battery by limited reduction control. Journal of Materials Science and Technology, 2021, 74, 52-59.	5.6	13
191	Rechargeable aqueous zinc-ion batteries: Mechanism, design strategies and future perspectives. Materials Today, 2021, 42, 73-98.	8.3	159
192	A-site deficient perovskite nanofibers boost oxygen evolution reaction for zinc-air batteries. Applied Surface Science, 2021, 536, 147806.	3.1	39
193	Unraveling MoS ₂ and Transition Metal Dichalcogenides as Functional Zincâ€lon Battery Cathode: A Perspective. Small Methods, 2021, 5, e2000815.	4.6	76
194	On-site building of a Zn2+-conductive interfacial layer via short-circuit energization for stable Zn anode. Science Bulletin, 2021, 66, 545-552.	4.3	39
195	Latest Advances in High-Voltage and High-Energy-Density Aqueous Rechargeable Batteries. Electrochemical Energy Reviews, 2021, 4, 1-34.	13.1	120
196	Solar Hybrid Systems and Energy Storage Systems. , 2021, , 87-125.		9
197	Challenges and strategies of zinc anode for aqueous zinc-ion batteries. Materials Chemistry Frontiers, 2021, 5, 2201-2217.	3.2	50
198	Interfacial modulation achieving a flexible anode of FeP/N-doped C@carbon cloth with a robust structure for high areal capacity lithium storage. Sustainable Energy and Fuels, 2021, 5, 5247-5256.	2.5	4
199	Mn-based oxides for aqueous rechargeable metal ion batteries. Journal of Materials Chemistry A, 2021, 9, 11472-11500.	5.2	44
200	A nano interlayer spacing and rich defect 1T-MoS ₂ as cathode for superior performance aqueous zinc-ion batteries. Nanoscale Advances, 2021, 3, 3780-3787.	2.2	25
201	Extended Ï€-Conjugated System in Organic Cathode with Active Câ•N Bonds for Driving Aqueous Zinc-Ion Batteries. ACS Applied Energy Materials, 2021, 4, 655-661.	2.5	39
202	Metal phosphides: topical advances in the design of supercapacitors. Journal of Materials Chemistry A, 2021, 9, 20241-20276.	5.2	66

#	Article	IF	Citations
203	Long cyclic stability of acidic aqueous zinc-ion batteries achieved by atomic layer deposition: the effect of the induced orientation growth of the Zn anode. Nanoscale, 2021, 13, 12223-12232.	2.8	33
204	A mixed-valent vanadium oxide cathode with ultrahigh rate capability for aqueous zinc-ion batteries. Journal of Materials Chemistry A, 2021, 9, 22392-22398.	5.2	30
205	Bromide–acetate co-mediated high-power density rechargeable aqueous zinc–manganese dioxide batteries. Journal of Materials Chemistry A, 2021, 9, 21888-21896.	5.2	9
206	Highly exposed discrete Co atoms anchored in ultrathin porous N, P-codoped carbon nanosheets for efficient oxygen electrocatalysis and rechargeable aqueous/solid-state Zn–air batteries. Journal of Materials Chemistry A, 2021, 9, 22643-22652.	5.2	30
207	A Co-intercalation enhanced V-based cathode material for fast charge aqueous zinc ion batteries. Chemical Communications, 2021, 57, 10339-10342.	2.2	10
208	Vanadium-based cathodes for aqueous zinc-ion batteries: from crystal structures, diffusion channels to storage mechanisms. Journal of Materials Chemistry A, 2021, 9, 5258-5275.	5.2	103
209	Liquid Alloy Interlayer for Aqueous Zinc-Ion Battery. ACS Energy Letters, 2021, 6, 675-683.	8.8	135
210	<i>In situ</i> built interphase with high interface energy and fast kinetics for high performance Zn metal anodes. Energy and Environmental Science, 2021, 14, 3609-3620.	15.6	300
211	Mechanism for Zincophilic Sites on Zincâ€Metal Anode Hosts in Aqueous Batteries. Advanced Energy Materials, 2021, 11, 2003419.	10.2	233
212	Electrolyte Strategies toward Better Zinc-Ion Batteries. ACS Energy Letters, 2021, 6, 1015-1033.	8.8	376
213	Scalable Assembly of Flexible Ultrathin Allâ€inâ€One Zincâ€ion Batteries with Highly Stretchable, Editable, and Customizable Functions. Advanced Materials, 2021, 33, e2008140.	11.1	106
214	Inorganic Colloidal Electrolyte for Highly Robust Zinc-Ion Batteries. Nano-Micro Letters, 2021, 13, 69.	14.4	152
215	Highâ€Voltage Rechargeable Aqueous Zincâ€Based Batteries: Latest Progress and Future Perspectives. Small Science, 2021, 1, 2000066.	5.8	56
216	3D-Printed Zn-Ion Hybrid Capacitor Enabled by Universal Divalent Cation-Gelated Additive-Free Ti ₃ C ₂ MXene Ink. ACS Nano, 2021, 15, 3098-3107.	7.3	131
217	Comprehensive Analyses of Aqueous Zn Metal Batteries: Characterization Methods, Simulations, and Theoretical Calculations. Advanced Energy Materials, 2021, 11, 2003823.	10.2	66
218	Initiating a Roomâ€Temperature Rechargeable Aqueous Fluorideâ€Ion Battery with Long Lifespan through a Rational Buffering Phase Design. Advanced Energy Materials, 2021, 11, 2003714.	10.2	28
219	Regulating Zn Deposition via an Artificial Solid–Electrolyte Interface with Aligned Dipoles for Long Life Zn Anode. Nano-Micro Letters, 2021, 13, 79.	14.4	117
220	Recent Progress and Challenges in Multivalent Metalâ€Ion Hybrid Capacitors. Batteries and Supercaps, 2021, 4, 1201-1220.	2.4	14

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#	Article	IF	CITATIONS
221	Application of Carbon Materials in Aqueous Zinc Ion Energy Storage Devices. Small, 2021, 17, e2100219.	5.2	68
222	Redox-active p-phenylenediamine functionalized reduced graphene oxide film through covalently grafting for ultrahigh areal capacitance Zn-ion hybrid supercapacitor. Journal of Power Sources, 2021, 488, 229426.	4.0	47
223	In-situ electrochemical conversion of vanadium dioxide for enhanced zinc-ion storage with large voltage range. Journal of Power Sources, 2021, 487, 229369.	4.0	61
224	A Review on Electrolytes for Aqueous Zinc-Ion Batteries. Ceramist, 2021, 24, 35-53.	0.0	1
225	A Δ <i>E</i> Â= 0.63 V Bifunctional Oxygen Electrocatalyst Enables Highâ€Rate and Long ycling Zinc–Air Batteries. Advanced Materials, 2021, 33, e2008606.	11.1	154
226	Highâ€Voltage Zincâ€Ion Batteries: Design Strategies and Challenges. Advanced Functional Materials, 2021, 31, 2010213.	7.8	123
227	Optimizing engineering of rechargeable aqueous zinc ion batteries to enhance the zinc ions storage properties of cathode material. Journal of Power Sources, 2021, 490, 229528.	4.0	26
228	Electrochemically induced NiCoSe2@NiOOH/CoOOH heterostructures as multifunctional cathode materials for flexible hybrid zn batteries. Energy Storage Materials, 2021, 36, 427-434.	9.5	92
229	A universal method towards conductive textile for flexible batteries with superior softness. Energy Storage Materials, 2021, 36, 272-278.	9.5	31
230	Enhanced Reversible Zinc Ion Intercalation in Deficient Ammonium Vanadate for High-Performance Aqueous Zinc-Ion Battery. Nano-Micro Letters, 2021, 13, 116.	14.4	111
231	A highly stable aqueous Zn/VS2 battery based on an intercalation reaction. Applied Surface Science, 2021, 544, 148882.	3.1	31
232	Ultrafast Zinc–Ion–Conductor Interface toward Highâ€Rate and Stable Zinc Metal Batteries. Advanced Energy Materials, 2021, 11, 2100186.	10.2	223
233	"Waterâ€inâ€Deep Eutectic Solvent―Electrolytes for Highâ€Performance Aqueous Znâ€ion Batteries. Advanced Functional Materials, 2021, 31, 2102035.	7.8	126
234	Heterometallic Seedâ€Mediated Zinc Deposition on Inkjet Printed Silver Nanoparticles Toward Foldable and Heatâ€Resistant Zinc Batteries. Advanced Functional Materials, 2021, 31, 2101607.	7.8	109
235	Zinc–Air Batteries Catalyzed Using Co ₃ O ₄ Nanorod-Supported N-Doped Entangled Graphene for Oxygen Reduction Reaction. ACS Applied Energy Materials, 2021, 4, 4570-4580.	2.5	14
236	Tuning the electronic structure of nanoporous Ag via alloying effect from Cu to boost the ORR and Zn-air battery performance. Applied Surface Science, 2021, 545, 149042.	3.1	18
237	Safe and flexible chitosanâ€based polymer gel as an electrolyte for use in zincâ€alkaline based chemistries. Journal of Applied Polymer Science, 2021, 138, 50813.	1.3	15
238	Progress on V2O5 Cathodes for Multivalent Aqueous Batteries. Materials, 2021, 14, 2310.	1.3	20

#	Article	IF	CITATIONS
239	Electrochemical Zinc Ion Capacitors: Fundamentals, Materials, and Systems. Advanced Energy Materials, 2021, 11, 2100201.	10.2	156
240	Rechargeable Zinc-Electrolytic Manganese Dioxide (EMD) Battery with a Flexible Chitosan-Alkaline Electrolyte. ACS Applied Energy Materials, 2021, 4, 4248-4258.	2.5	15
241	Bifunctional Covalent Organic Frameworkâ€Derived Electrocatalysts with Modulated <i>p</i> â€Band Centers for Rechargeable Zn–Air Batteries. Advanced Functional Materials, 2021, 31, 2101727.	7.8	76
242	Aqueous Rechargeable Znâ€ion Batteries: Strategies for Improving the Energy Storage Performance. ChemSusChem, 2021, 14, 1987-2022.	3.6	59
243	Toward Planar and Dendriteâ€Free Zn Electrodepositions by Regulating Sn rystal Textured Surface. Advanced Materials, 2021, 33, e2008424.	11.1	144
244	Sustainable wearable energy storage devices selfâ€charged by humanâ€body bioenergy. SusMat, 2021, 1, 285-302.	7.8	60
245	An Ultrahigh Performance Zincâ€Organic Battery using Poly(catechol) Cathode in Zn(TFSI) ₂ â€Based Concentrated Aqueous Electrolytes. Advanced Energy Materials, 2021, 11, 2100939.	10.2	93
246	Reduced Intercalation Energy Barrier by Rich Structural Water in Spinel ZnMn ₂ O ₄ for High-Rate Zinc-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 23822-23832.	4.0	40
247	A reversible Zn-metal battery. Nature Nanotechnology, 2021, 16, 854-855.	15.6	41
248	Macromolecular Engineering of Poly(catechol) Cathodes towards High-Performance Aqueous Zinc-Polymer Batteries. Polymers, 2021, 13, 1673.	2.0	11
249	Influence of anion substitution on 3D-architectured Ni-Co-A (A=H, O, P) as efficient cathode materials towards rechargeable Zn-based battery. Energy Storage Materials, 2021, 37, 336-344.	9.5	28
250	Novel aluminum vanadate as a cathode material for high-performance aqueous zinc-ion batteries. Nanotechnology, 2021, 32, 315405.	1.3	9
251	Realizing high-power and high-capacity zinc/sodium metal anodes through interfacial chemistry regulation. Nature Communications, 2021, 12, 3083.	5.8	167
252	Storage mechanisms and improved strategies for manganese-based aqueous zinc-ion batteries. Journal of Electroanalytical Chemistry, 2021, 888, 115196.	1.9	30
253	Tailoring nanostructured transition metal phosphides for high-performance hybrid supercapacitors. Nano Today, 2021, 38, 101201.	6.2	86
254	Mn5O8 – graphene hybrid electrodes for high rate capability and large capacity aqueous rechargeable zinc ion batteries. Journal of Alloys and Compounds, 2021, 867, 159034.	2.8	13
255	Carbon nanotubes-based electrode for Zn ion batteries. Materials Research Bulletin, 2021, 138, 111246.	2.7	18
256	Interlayer Structure Engineering of MXeneâ€Based Capacitorâ€Type Electrode for Hybrid Microâ€Supercapacitor toward Batteryâ€Level Energy Density. Advanced Science, 2021, 8, e2100775.	5.6	104

#	Article	IF	CITATIONS
257	Advances and Perspectives of Cathode Storage Chemistry in Aqueous Zinc-Ion Batteries. ACS Nano, 2021, 15, 9244-9272.	7.3	272
258	Operando non-topological conversion constructing the high-performance nickel-zinc battery anode. Chemical Engineering Journal, 2021, 414, 128716.	6.6	11
259	N, S Codoped Carbon Matrixâ€Encapsulated Co ₉ S ₈ Nanoparticles as a Highly Efficient and Durable Bifunctional Oxygen Redox Electrocatalyst for Rechargeable Zn–Air Batteries. Advanced Energy Materials, 2021, 11, 2101249.	10.2	102
260	Chemical Heterointerface Engineering on Hybrid Electrode Materials for Electrochemical Energy Storage. Small Methods, 2021, 5, e2100444.	4.6	62
261	Zn ²⁺ Induced Phase Transformation of K ₂ MnFe(CN) ₆ Boosts Highly Stable Zincâ€lon Storage. Advanced Energy Materials, 2021, 11, 2003639.	10.2	127
262	Cation- deficient Zn0.3(NH4)0.3V4O10•0.91H2O for rechargeable aqueous zinc battery with superior low- temperature performance. Energy Storage Materials, 2021, 38, 389-396.	9.5	64
263	High electrochemical and mechanical performance of zinc conducting-based gel polymer electrolytes. Scientific Reports, 2021, 11, 13268.	1.6	28
264	Waterâ€Repellent Ionic Liquid Skinny Gels Customized for Aqueous Znâ€Ion Battery Anodes. Advanced Functional Materials, 2021, 31, 2103850.	7.8	63
265	Saccharin Anion Acts as a "Traffic Assistant―of Zn ²⁺ to Achieve a Long-Life and Dendritic-Free Zinc Plate Anode. ACS Applied Materials & Interfaces, 2021, 13, 29631-29640.	4.0	26
266	Recent Advances in Transition Metal Dichalcogenide Cathode Materials for Aqueous Rechargeable Multivalent Metal-Ion Batteries. Nanomaterials, 2021, 11, 1517.	1.9	27
267	The Emerging of Aqueous Zincâ€Based Dual Electrolytic Batteries. Small, 2021, 17, e2008043.	5.2	23
268	Hygroscopic Double‣ayer Gel Polymer Electrolyte toward Highâ€Performance Lowâ€Temperature Zinc Hybrid Batteries. Batteries and Supercaps, 2021, 4, 1627-1635.	2.4	13
269	The impact of indium metal as a minor bimetal on the anodic dissolution and passivation performance of zinc for alkaline batteries. Part II: galvanostatic, impedance spectroscopy, and charge–discharge evaluations. Journal of Solid State Electrochemistry, 2021, 25, 2175-2187.	1.2	1
270	Bi ₂ O ₃ Induced Ultralong Cycle Lifespan and High Capacity of MnO ₂ Nanotube Cathodes in Aqueous Zinc-Ion Batteries. ACS Applied Energy Materials, 2021, 4, 7355-7364.	2.5	14
271	On the deactivation mechanisms of MnO2 electrocatalyst during operation in rechargeable zinc-air batteries studied via density functional theory. Journal of Alloys and Compounds, 2021, 869, 159280.	2.8	17
272	Cations Coordinationâ€Regulated Reversibility Enhancement for Aqueous Znâ€ion Battery. Advanced Functional Materials, 2021, 31, 2105736.	7.8	59
273	Rechargeable zinc-air batteries with neutral electrolytes: Recent advances, challenges, and prospects. EnergyChem, 2021, 3, 100055.	10.1	59
274	Zn-ion hybrid supercapacitors: Achievements, challenges and future perspectives. Nano Energy, 2021, 85, 105942.	8.2	230

#	Article	IF	CITATIONS
275	Materials Development in Hybrid Zincâ€ion Capacitors. ChemNanoMat, 2021, 7, 1082-1098.	1.5	16
276	Tuning the Electrolyte Solvation Structure to Suppress Cathode Dissolution, Water Reactivity, and Zn Dendrite Growth in Zinc″on Batteries. Advanced Functional Materials, 2021, 31, 2104281.	7.8	225
277	Multiâ€Functional Hydrogels for Flexible Zincâ€Based Batteries Working under Extreme Conditions. Advanced Energy Materials, 2021, 11, 2101749.	10.2	116
278	Machine Learning Assisted Prediction of Cathode Materials for Znâ€Ion Batteries. Advanced Theory and Simulations, 2021, 4, 2100196.	1.3	11
279	Hydrogen and sodium ions co-intercalated vanadium dioxide electrode materials with enhanced zinc ion storage capacity. Nano Energy, 2021, 86, 106124.	8.2	85
280	La _{0.14} V ₂ O ₅ /Reduced Graphene Oxide Composite for Aqueous Zincâ`'lon Batteries with Long Cycle Life. Journal of the Electrochemical Society, 2021, 168, 080527.	1.3	10
281	Covalent Organic Frameworks and Their Derivatives for Better Metal Anodes in Rechargeable Batteries. ACS Nano, 2021, 15, 12741-12767.	7.3	71
282	Designing Advanced Aqueous Zincâ€lon Batteries: Principles, Strategies, and Perspectives. Energy and Environmental Materials, 2022, 5, 823-851.	7.3	69
283	Emerging trends in sustainable battery chemistries. Trends in Chemistry, 2021, 3, 620-630.	4.4	34
284	Cyclic Ether–Water Hybrid Electrolyte-Guided Dendrite-Free Lamellar Zinc Deposition by Tuning the Solvation Structure for High-Performance Aqueous Zinc-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 40638-40647.	4.0	40
285	Oxygen-Defect Enhanced Anion Adsorption Energy Toward Super-Rate and Durable Cathode for Ni–Zn Batteries. Nano-Micro Letters, 2021, 13, 167.	14.4	52
286	Challenges and strategies on Zn electrodeposition for stable Zn-ion batteries. Energy Storage Materials, 2021, 39, 365-394.	9.5	139
287	Insight into the Critical Role of Surface Hydrophilicity for Dendrite-Free Zinc Metal Anodes. ACS Energy Letters, 2021, 6, 3078-3085.	8.8	121
288	Ion-transport behavior in tetraethylene glycol dimethyl ether incorporated sodium ion conducting polymer gel electrolyte membranes intended for sodium battery application. Journal of Molecular Liquids, 2021, 336, 116594.	2.3	19
289	Studying the Conversion Mechanism to Broaden Cathode Options in Aqueous Zincâ€lon Batteries. Angewandte Chemie, 2021, 133, 25318-25325.	1.6	34
290	Studying the Conversion Mechanism to Broaden Cathode Options in Aqueous Zinc″on Batteries. Angewandte Chemie - International Edition, 2021, 60, 25114-25121.	7.2	84
291	A review of zinc-based battery from alkaline to acid. Materials Today Advances, 2021, 11, 100149.	2.5	64
292	Emerging Intercalation Cathode Materials for Multivalent Metalâ€Ion Batteries: Status and Challenges. Small Structures, 2021, 2, 2100082.	6.9	61

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#	Article	IF	CITATIONS
293	Ultra-pressure-resistant SiOC@Cu2Se 3D printed cathode for aqueous zinc-ion batteries. Ceramics International, 2021, 47, 24699-24706.	2.3	12
294	Microwave-induced structural tunability of 3D δ-MnO2 microflowers for high-performance aqueous Zn-ion batteries. Ceramics International, 2021, 47, 25558-25566.	2.3	10
295	Fabric based printed-distributed battery for wearable e-textiles: a review. Science and Technology of Advanced Materials, 2021, 22, 772-793.	2.8	14
296	A dendrite-free Zn@CuxZny composite anode for rechargeable aqueous batteries. Electrochimica Acta, 2021, 399, 139334.	2.6	22
297	Controllably Electrodepositing ZIF-8 Protective Layer for Highly Reversible Zinc Anode with Ultralong Lifespan. Journal of Physical Chemistry Letters, 2021, 12, 9055-9059.	2.1	17
298	Understanding of the electrochemical behaviors of aqueous zinc–manganese batteries: Reaction processes and failure mechanisms. Green Energy and Environment, 2022, 7, 858-899.	4.7	20
299	Localizing concentrated electrolyte in pore geometry for highly reversible aqueous Zn metal batteries. Chemical Engineering Journal, 2021, 420, 129642.	6.6	56
300	Enhanced Zinc Ion Storage Capability of V ₂ O ₅ Electrode Materials with Hollow Interior Cavities. Batteries and Supercaps, 2021, 4, 1867-1873.	2.4	31
301	High-performance reversible aqueous zinc-ion battery based on iron-doped alpha-manganese dioxide coated by polypyrrole. Journal of Colloid and Interface Science, 2021, 598, 419-429.	5.0	46
302	Issues and rational design of aqueous electrolyte for Znâ€ion batteries. SusMat, 2021, 1, 432-447.	7.8	62
303	Recent progress of carbon nanomaterials for high-performance cathodes and anodes in aqueous zinc ion batteries. Energy Storage Materials, 2021, 41, 715-737.	9.5	93
304	A novel rechargeable zinc–copper battery without a separator. Journal of Energy Storage, 2021, 42, 103109.	3.9	5
305	MoS2 CoP heterostructure loaded on N, P-doped carbon as an efficient trifunctional catalyst for oxygen reduction, oxygen evolution, and hydrogen evolution reaction. International Journal of Hydrogen Energy, 2021, 46, 34252-34263.	3.8	32
306	Modifying hydrogel electrolyte to induce zinc deposition for dendrite-free zinc metal anode. Electrochimica Acta, 2021, 393, 139094.	2.6	30
307	Modulating Zn deposition via ceramic-cellulose separator with interfacial polarization effect for durable zinc anode. Nano Energy, 2021, 89, 106322.	8.2	162
308	Recent progress of cathode materials for aqueous zinc-ion capacitors: Carbon-based materials and beyond. Carbon, 2021, 185, 126-151.	5.4	71
309	Oxygen vacancies enriched nickel cobalt based nanoflower cathodes: Mechanism and application of the enhanced energy storage. Journal of Energy Chemistry, 2021, 62, 252-261.	7.1	54
310	Oxygen-vacancy and phosphate coordination triggered strain engineering of vanadium oxide for high-performance aqueous zinc ion storage. Nano Energy, 2021, 89, 106477.	8.2	60

#	Article	IF	CITATIONS
311	Enabling the fabrication of advanced NiCo/Bi alkaline battery via MOF-hydrolyzing derived cathode and anode. Materials Today Physics, 2021, 21, 100499.	2.9	5
312	High voltage aqueous Zn/LiCoO2 hybrid battery under mildly alkaline conditions. Energy Storage Materials, 2021, 43, 158-164.	9.5	14
313	Self-assembled ZnO-carbon dots anode materials for high performance nickel-zinc alkaline batteries. Chemical Engineering Journal, 2021, 425, 130660.	6.6	29
314	Progress and prospect of the zinc–iodine battery. Current Opinion in Electrochemistry, 2021, 30, 100761.	2.5	24
315	Suppressing Cu-based cathode dissolution in rechargeable aqueous zinc batteries with equilibrium principles. Applied Surface Science, 2021, 568, 150948.	3.1	3
316	Reversible kinetics and rapid tunnelling characteristics of silicon doped magnesium-titanium nanocomposites prepared by mechanical alloying route for nickel-metal hydride batteries. Materials Chemistry and Physics, 2021, 274, 125129.	2.0	5
317	Electrospun carbon nanofibers functionalized with NiCo2S4 nanoparticles as lightweight, flexible and binder-free cathode for aqueous Ni-Zn batteries. Chemical Engineering Journal, 2021, 426, 130068.	6.6	29
318	Tailoring the interfacial active center of MnSxO2â^'x/MnCo2S4 heterostructure to boost the performance for oxygen evolution reaction and Zn-Air batteries in neutral electrolyte. Chemical Engineering Journal, 2022, 427, 131966.	6.6	13
319	Interfacial parasitic reactions of zinc anodes in zinc ion batteries: Underestimated corrosion and hydrogen evolution reactions and their suppression strategies. Journal of Energy Chemistry, 2022, 64, 246-262.	7.1	128
320	Highly active cobalt-doped nickel sulfide porous nanocones for high-performance quasi-solid-state zinc-ion batteries. Journal of Energy Chemistry, 2022, 66, 237-249.	7.1	15
321	Nanostructured conductive polymer shield for highly reversible dendrite-free zinc metal anode. Chemical Engineering Journal, 2022, 427, 131954.	6.6	17
322	Polydopamine-coated bimetallic ZIF derivatives as an air cathode for acidic Zn–air batteries with super-high potential. Chemical Communications, 2021, 57, 11248-11251.	2.2	8
323	Zinc/selenium conversion battery: a system highly compatible with both organic and aqueous electrolytes. Energy and Environmental Science, 2021, 14, 2441-2450.	15.6	93
324	Strategies of structural and defect engineering for high-performance rechargeable aqueous zinc-ion batteries. Journal of Materials Chemistry A, 2021, 9, 19245-19281.	5.2	41
325	Revealing the asymmetric redox dynamics of a porous bismuth anode in an efficient Ni//Bi battery. Journal of Materials Chemistry A, 2021, 9, 22269-22276.	5.2	11
326	Cathode Design for Aqueous Rechargeable Multivalent Ion Batteries: Challenges and Opportunities. Advanced Functional Materials, 2021, 31, 2010445.	7.8	102
327	Guiding uniform Zn deposition by cocoons for long-life Zn metal batteries. New Journal of Chemistry, 2021, 45, 9747-9750.	1.4	1
328	B-site W ion-doped La _{0.5} Sr _{0.5} Co _{1â^²x} W _x O _{3â^²l´} perovskite nanofibers with defects as bifunctional oxygen catalysts for rechargeable zinc-air batteries. Sustainable Energy and Fuels 2021 5, 3818-3824	2.5	3

#	Article	IF	CITATIONS
329	Layered electrode materials for non-aqueous multivalent metal batteries. Journal of Materials Chemistry A, 2021, 9, 19317-19345.	5.2	15
330	Recent progress in aqueous zinc-ion batteries: a deep insight into zinc metal anodes. Journal of Materials Chemistry A, 2021, 9, 6013-6028.	5.2	105
331	Aqueous Rechargeable Metalâ€lon Batteries Working at Subzero Temperatures. Advanced Science, 2021, 8, 2002590.	5.6	89
332	Electrochemically activated MnO cathodes for high performance aqueous zinc-ion battery. Chemical Engineering Journal, 2020, 402, 125509.	6.6	109
333	Recent advances and perspectives in stable and dendrite-free potassium metal anodes. Energy Storage Materials, 2020, 30, 206-227.	9.5	95
334	Charging activation and desulfurization of MnS unlock the active sites and electrochemical reactivity for Zn-ion batteries. Nano Energy, 2020, 75, 104869.	8.2	66
335	Sustainable Electrocatalytic Architectures Enable Rechargeable Zinc–Air Batteries with Low Voltage Hysteresis. ACS Applied Energy Materials, 2020, 3, 10485-10494.	2.5	3
336	In Situ Sulfidation for Controllable Heterointerface of Cobalt Oxides–Cobalt Sulfides on 3D Porous Carbon Realizing Efficient Rechargeable Liquid-/Solid-State Zn–Air Batteries. ACS Sustainable Chemistry and Engineering, 2021, 9, 510-520.	3.2	25
337	Hierarchical Co ₃ O ₄ nanorods anchored on nitrogen doped reduced graphene oxide: a highly efficient bifunctional electrocatalyst for rechargeable Zn–air batteries. Catalysis Science and Technology, 2020, 10, 1444-1457.	2.1	13
338	Ideal design of air electrode—A step closer toward robust rechargeable Zn–air battery. APL Materials, 2020, 8, .	2.2	27
339	Roadmap for advanced aqueous batteries: From design of materials to applications. Science Advances, 2020, 6, eaba4098.	4.7	1,069
340	Interfacial Manipulation via In Situ Grown ZnSe Cultivator toward Highly Reversible Zn Metal Anodes. Advanced Materials, 2021, 33, e2105951.	11.1	212
341	Interfacial Engineering Regulates Deposition Kinetics of Zinc Metal Anodes. ACS Applied Energy Materials, 2021, 4, 11743-11751.	2.5	8
342	γ-Al2O3 coating layer confining zinc dendrite growth for high stability aqueous rechargeable zinc-ion batteries. Surface and Coatings Technology, 2021, 427, 127813.	2.2	21
343	Iron-doped nanoflakes of layered double hydroxide of nickel for high-performance hybrid zinc batteries. Materials Today Energy, 2021, 22, 100879.	2.5	6
344	Mn _{0.26} V ₂ O ₅ Â< <i>n</i> H ₂ O Nanoribbons with Fast Ion Diffusion Channels and High Electrical Conductivity for Intercalation Pseudocapacitive Zn ²⁺ Storage. Energy & amp; Fuels, 2021, 35, 17948-17955.	2.5	7
345	A highly compressible hydrogel electrolyte for flexible Zn-MnO2 battery. Journal of Colloid and Interface Science, 2022, 608, 1619-1626.	5.0	24
346	Encapsulation of Metallic Zn in a Hybrid MXene/Graphene Aerogel as a Stable Zn Anode for Foldable Znâ€ion Batteries. Advanced Materials, 2022, 34, e2106897.	11.1	153

#	Article	IF	CITATIONS
347	Recent advances and perspectives of metal/covalent-organic frameworks in metal-air batteries. Journal of Energy Chemistry, 2021, 63, 113-129.	7.1	25
348	Metal-organic frameworks and their derivatives in stable Zn metal anodes for aqueous Zn-ion batteries. ChemPhysMater, 2022, 1, 252-263.	1.4	25
349	Aqueous Zn-MnO2 battery: Approaching the energy storage limit with deep Zn2+ pre-intercalation and revealing the ions insertion/extraction mechanisms. Journal of Energy Chemistry, 2022, 67, 225-232.	7.1	31
350	Enhanced reversibility of vanadium oxide cathode by diminished surface precipitation in Zn(TFSI)2 aqueous electrolyte. Electrochimica Acta, 2021, 399, 139432.	2.6	16
351	Biomimetic construction of bifunctional perovskite oxygen catalyst for zinc-air batteries. Electrochimica Acta, 2021, 399, 139407.	2.6	9
352	Printable electrode materials for supercapacitors. ChemPhysMater, 2022, 1, 17-38.	1.4	10
353	Enabling kinetically fast activation of carbon nanotube@nickel selenide through pore-phase dual regulation in aqueous zinc battery. Science China Materials, 2022, 65, 929-938.	3.5	5
354	A "gas-breathing―integrated air diffusion electrode design with improved oxygen utilization efficiency for high-performance Zn-air batteries. Chemical Engineering Journal, 2022, 431, 133210.	6.6	18
355	A Highly Reversible Zinc Anode for Rechargeable Aqueous Batteries. ACS Applied Materials & Interfaces, 2021, 13, 52659-52669.	4.0	31
356	Chemically coupled 0D-3D hetero-structure of Co9S8-Ni3S4 hollow spheres for Zn-based supercapacitors. Chemical Engineering Journal, 2022, 430, 132836.	6.6	23
357	A high areal capacity solid-state zinc-air battery via interface optimization of electrode and electrolyte. Chemical Engineering Journal, 2022, 430, 132996.	6.6	31
358	An efficient dual-phase strategy of preparing K0.5V2O5/NaV3O8 hybrid for durable zinc storage. Chemical Engineering Journal, 2022, 431, 133440.	6.6	2
359	A new high-performance rechargeable alkaline Zn battery based on mesoporous nitrogen-doped oxygen-deficient hematite. Science China Materials, 2022, 65, 920-928.	3.5	9
361	Flexible one-dimensional Zn-based electrochemical energy storage devices: recent progress and future perspectives. Journal of Materials Chemistry A, 2021, 9, 26573-26602.	5.2	7
362	Defective ZnOx@porous carbon nanofiber network inducing dendrite-free zinc plating as zinc metal anode for high-performance aqueous rechargeable Zn/Na4Mn9O18 battery based on hybrid electrolyte. Journal of Power Sources, 2022, 518, 230761.	4.0	20
363	Graphene quantum dots enable dendrite-free zinc ion battery. Nano Energy, 2022, 92, 106752.	8.2	98
364	A new zinc-ion battery cathode with high-performance: Loofah-like lanthanum manganese perovskite. Journal of Colloid and Interface Science, 2022, 610, 796-804.	5.0	4
365	Recent advances and challenges of metal–organic framework/graphene-based composites. Composites Part B: Engineering, 2022, 230, 109532.	5.9	66

#	Article	IF	CITATIONS
366	Electrode–Electrolyte Interactions in an Aqueous Aluminum–Carbon Rechargeable Battery System. Nanomaterials, 2021, 11, 3235.	1.9	4
367	Carbon nanomaterials for highly stable Zn anode: Recent progress and future outlook. Journal of Electroanalytical Chemistry, 2022, 904, 115883.	1.9	19
368	A Longâ€Life Manganese Oxide Cathode Material for Aqueous Zinc Batteries with a Negatively Charged Porous Host to Promote the Backâ€Deposition of Dissolved Mn ²⁺ . Advanced Functional Materials, 2022, 32, 2106994.	7.8	39
369	Manipulating intercalation-extraction mechanisms in structurally modulated δ-MnO2 nanowires for high-performance aqueous zinc-ion batteries. Chemical Engineering Journal, 2022, 433, 133687.	6.6	45
370	Bi Doping-Enhanced Reversible-Phase Transition of α-MnO ₂ Raising the Cycle Capability of Aqueous Zn–Mn Batteries. ACS Applied Materials & Interfaces, 2021, 13, 55208-55217.	4.0	33
371	Recent Advances in Electrolytes for "Beyond Aqueous―Zincâ€Ion Batteries. Advanced Materials, 2022, 34, e2106409.	11.1	167
372	Synthesis and Performance Optimization of Manganeseâ€based Cathode Materials for Zincâ€lon Batteries. Batteries and Supercaps, 2022, 5, .	2.4	10
373	Freestanding CuV2O6/carbon nanotube composite films for flexible aqueous zinc-ion batteries. Applied Surface Science, 2022, 578, 152053.	3.1	10
374	Interfacial Engineering Strategy for High-Performance Zn Metal Anodes. Nano-Micro Letters, 2022, 14, 6.	14.4	177
375	The production and electrochemical properties of N-doped porous carbon structure-based supercapacitor coin cells and flexible wristbands. Journal of Energy Storage, 2022, 48, 103698.	3.9	9
376	Bismuth Nanoparticles Encapsulated in Nitrogenâ€Rich Porous Carbon Nanofibers as a Highâ€Performance Anode for Aqueous Alkaline Rechargeable Batteries. Small, 2022, 18, e2105770.	5.2	16
377	Reduction of silver ions in molybdates: elucidation of framework acidity as the factor controlling charge balance mechanisms in aqueous zinc-ion electrolyte. RSC Advances, 2021, 11, 39523-39533.	1.7	2
378	Supercapacitors operated at extremely low environmental temperatures. Journal of Materials Chemistry A, 2021, 9, 26603-26627.	5.2	25
379	Alleviated Mn ²⁺ dissolution drives long-term cycling stability in ultrafine Mn ₃ O ₄ /PPy core–shell nanodots for zinc-ion batteries. Journal of Materials Chemistry A, 2021, 9, 27380-27389.	5.2	14
380	Rational Electrode–Electrolyte Design for Long-Life Rechargeable Aqueous Zinc-Ion Batteries. Journal of Physical Chemistry C, 2022, 126, 1264-1270.	1.5	8
381	Chaotropic anion based "water-in-salt―electrolyte realizes a high voltage Zn–graphite dual-ion battery. Journal of Materials Chemistry A, 2022, 10, 2064-2074.	5.2	28
382	Twoâ€Dimensional Organic Supramolecule via Hydrogen Bonding and π–π Stacking for Ultrahigh Capacity and Longâ€Life Aqueous Zinc–Organic Batteries. Angewandte Chemie - International Edition, 2022, 61, .	7.2	99
383	Optimizing the charging protocol to address the self-discharge issues in rechargeable alkaline Zn-Co batteries. Applied Energy, 2022, 308, 118366.	5.1	12

#	Article	IF	CITATIONS
384	Research progress in transition metal oxide based bifunctional electrocatalysts for aqueous electrically rechargeable zinc-air batteries. Renewable and Sustainable Energy Reviews, 2022, 156, 111970.	8.2	37
385	Machine learning in state of health and remaining useful life estimation: Theoretical and technological development in battery degradation modelling. Renewable and Sustainable Energy Reviews, 2022, 156, 111903.	8.2	80
386	Surface alteration driven bi-functional catalytic activity of alkali niobate-N doped graphene composite for exalted oxygen electrochemistry. Applied Surface Science, 2022, 580, 152160.	3.1	4
387	Edge-segregated ternary Pd–Pt–Ni spiral nanosheets as high-performance bifunctional oxygen redox electrocatalysts for rechargeable zinc–air batteries. Journal of Materials Chemistry A, 2022, 10, 3808-3817.	5.2	17
388	Review—Nanomaterials Green Synthesis for High-Performance Secondary Rechargeable Batteries: Approaches, Challenges, and Perspectives. Journal of the Electrochemical Society, 2022, 169, 010534.	1.3	4
390	Relieving hydrogen evolution and anodic corrosion of aqueous aluminum batteries with hybrid electrolytes. Journal of Materials Chemistry A, 2022, 10, 4739-4748.	5.2	11
391	Recent advances and perspectives of 3D printed micro-supercapacitors: from design to smart integrated devices. Chemical Communications, 2022, 58, 2075-2095.	2.2	34
392	Ammonium vanadate cathode materials with enhanced Zn storage by the optimization of electrolytes. CrystEngComm, 2022, 24, 1387-1393.	1.3	7
393	Facile Preparation of Fe–N–C Oxygen Reduction Electrocatalysts from Metal Organic Frameworks for Zn-Air Battery. Journal of Renewable Materials, 2022, 10, 1337-1348.	1.1	3
394	In-situ electrochemical modification of pre-intercalated vanadium bronze cathodes for aqueous zinc-ion batteries. Science China Materials, 2022, 65, 1165-1175.	3.5	18
395	Iron anodeâ€based aqueous electrochemical energy storage devices: Recent advances and future perspectives. , 2022, 1, 116-139.		73
396	Atomically Dispersed Fe–Co Dual Metal Sites as Bifunctional Oxygen Electrocatalysts for Rechargeable and Flexible Zn–Air Batteries. ACS Catalysis, 2022, 12, 1216-1227.	5.5	232
397	Core–shell-structured and hydrogen-evolution-suppressing zinc anode for high stability Zn–Ni secondary batteries. Sustainable Energy and Fuels, 2022, 6, 1414-1425.	2.5	6
398	Designing wearable microgrids: towards autonomous sustainable on-body energy management. Energy and Environmental Science, 2022, 15, 82-101.	15.6	48
399	MOF-derived NiCo ₂ S ₄ and carbon hybrid hollow spheres compactly concatenated by electrospun carbon nanofibers as self-standing electrodes for aqueous alkaline Zn batteries. Journal of Materials Chemistry A, 2022, 10, 4100-4109.	5.2	21
400	Twoâ€Dimensional Organic Supramolecule via Hydrogen Bonding and π–π Stacking for Ultrahigh Capacity and Longâ€Life Aqueous Zinc–Organic Batteries. Angewandte Chemie, 2022, 134, .	1.6	18
401	Insight on Organic Molecules in Aqueous Znâ€lon Batteries with an Emphasis on the Zn Anode Regulation. Advanced Energy Materials, 2022, 12, .	10.2	208
402	Potassium Polyacrylate-Based Gel Polymer Electrolyte for Practical Zn–Ni Batteries. ACS Applied Materials & Interfaces, 2022, 14, 22847-22857.	4.0	14

#	Article	IF	CITATIONS
403	A highly stable 1.3ÂV organic cathode for aqueous zinc batteries designed in-situ by solid-state electrooxidation. Energy Storage Materials, 2022, 46, 129-137.	9.5	11
404	In-situ grown porous protective layers with high binding strength for stable Zn anodes. Chemical Engineering Journal, 2022, 434, 134688.	6.6	35
405	Co3O4/Mn3O4 hybrid catalysts with heterointerfaces as bifunctional catalysts for Zn-air batteries. Journal of Energy Chemistry, 2022, 68, 679-687.	7.1	47
406	High mass loading CaV4O9 microflowers with amorphous phase transformation as cathode for aqueous zinc-ion battery. Chemical Engineering Journal, 2022, 434, 134642.	6.6	46
407	Electrochemical reaction behavior of MnS in aqueous zinc ion battery. Inorganic Chemistry Frontiers, 2022, 9, 1481-1489.	3.0	13
408	High-performance zinc-ion battery cathode enabled by deficient manganese monoxide/graphene heterostructures. Electrochimica Acta, 2022, 411, 140045.	2.6	8
409	Strategies for Stabilization of Zn Anodes for Aqueous Zn-Based Batteries: A Mini Review. Frontiers in Chemistry, 2021, 9, 822624.	1.8	3
410	Recent Advances of Aqueous Rechargeable Zincâ€lodine Batteries: Challenges, Solutions, and Prospects. Advanced Materials, 2022, 34, e2108856.	11.1	119
411	Microscale-decoupled charge-discharge reaction sites for an air electrode with abundant triple-phase boundary and enhanced cycle stability of Zn-Air batteries. Journal of Power Sources, 2022, 525, 231108.	4.0	6
412	Continuous Fabrication of Ti3C2Tx MXene-Based Braided Coaxial Zinc-Ion Hybrid Supercapacitors with Improved Performance. Nano-Micro Letters, 2022, 14, 34.	14.4	46
413	Insight into Potential Oscillation Behaviors During Zn Electrodeposition: Mechanism and Inspiration for Rechargeable Zn Batteries. SSRN Electronic Journal, 0, , .	0.4	0
414	The Intercalation Cathode Materials ÂOf Heterostructure Mns/Mno with Dual Ions Defect Embedded in N-Doped Carbon Fibers for Aqueous Zinc I on Batteries. SSRN Electronic Journal, 0, , .	0.4	0
415	Less is more: tiny amounts of insoluble multi-functional nanoporous additives play a big role in lithium secondary batteries. Journal of Materials Chemistry A, 2022, 10, 8047-8058.	5.2	5
416	Unlocking Zinc-Ion Energy Storage Performance of Onion-Like Carbon by Promoting Heteroatom Doping Strategy. ACS Applied Materials & Interfaces, 2022, 14, 9013-9023.	4.0	27
417	Surface Defect Modulation with Intercalation Ion Doping Vanadium Oxide to Enhance Zinc Storage Performance. Energy & Fuels, 2022, 36, 2872-2879.	2.5	2
418	Recent Progress on Feâ€Based Single/Dualâ€Atom Catalysts for Zn–Air Batteries. Small, 2022, 18, e2106635.	5.2	47
419	Hollow Carbon Sphere and Polyhedral Carbon Composites Supported Iron Nanoparticles as Excellent Bifunctional Electrocatalysts of Zn–Air Battery. Energy Technology, 2022, 10, .	1.8	7
420	Highly Crystalline Flower-Like Covalent-Organic Frameworks Enable Highly Stable Zinc Metal Anodes. ACS Applied Energy Materials, 2022, 5, 3715-3723.	2.5	29

#	Article	IF	CITATIONS
421	Advances of Metal Oxide Composite Cathodes for Aqueous Zincâ€lon Batteries. Advanced Energy and Sustainability Research, 2022, 3, .	2.8	4
422	Surface and Interface Engineering of Zn Anodes in Aqueous Rechargeable Znâ€lon Batteries. Small, 2022, 18, e2200006.	5.2	105
423	Eutectic Electrolytes Chemistry for Rechargeable Zn Batteries. Small, 2022, 18, e2200550.	5.2	40
424	Rapid Electrochemical Activation of V ₂ O ₃ @C Cathode for Highâ€Performance Zincâ€Ion Batteries in Waterâ€inâ€Salt Electrolyte. ChemSusChem, 2022, 15, .	3.6	16
425	Comprehensive review on <scp>zincâ€ion</scp> battery anode: Challenges and strategies. InformaÄnÃ- Materiály, 2022, 4, .	8.5	121
426	Ethylene Glycol as an Antifreeze Additive and Corrosion Inhibitor for Aqueous Zincâ€lon Batteries. Batteries and Supercaps, 2022, 5, .	2.4	14
427	Cooperative Chloride Hydrogel Electrolytes Enabling Ultralow-Temperature Aqueous Zinc Ion Batteries by the Hofmeister Effect. Nano-Micro Letters, 2022, 14, 98.	14.4	28
428	Insight into potential oscillation behaviors during Zn electrodeposition: Mechanism and inspiration for rechargeable Zn batteries. Chemical Engineering Journal, 2022, 438, 135541.	6.6	27
429	A high strength, anti-corrosion and sustainable separator for aqueous zinc-based battery by natural bamboo cellulose. Energy Storage Materials, 2022, 48, 191-191.f6.	9.5	43
430	Monosodium glutamate, an effective electrolyte additive to enhance cycling performance of Zn anode in aqueous battery. Nano Energy, 2022, 98, 107220.	8.2	144
431	In-situ formation of ultrafine ZnMn2O4-MnOOH composite nanoparticles embedded into porous carbon nanospheres for stable aqueous zinc-ion batteries. Applied Surface Science, 2022, 592, 153279.	3.1	8
432	Advanced Battery Materials Research at Nazarbayev University: Review. Eurasian Chemico-Technological Journal, 2021, 23, 199.	0.3	0
433	Regulating the Interfacial Electron Density of La _{0.8} Sr _{0.2} Mn _{0.5} Co _{0.5} O ₃ /RuO _{<i>x</i> for Efficient and Low-Cost Bifunctional Oxygen Electrocatalysts and Rechargeable Zn-Air Batteries. ACS Applied Materials & amp; Interfaces, 2021, 13, 61098-61106.}	sub> 4.0	10
434	Regulating Zinc Deposition Behaviors by the Conditioner of PAN Separator for Zincâ€Ion Batteries. Advanced Functional Materials, 2022, 32, .	7.8	130
435	CoO Enhanced Oxygen Evolution Kinetics of LaMnO ₃ Perovskite As a Potential Cathode for Rechargeable Zn-Air Batteries. Energy & Fuels, 2022, 36, 1091-1099.	2.5	15
436	Frontiers and Structural Engineering for Building Flexible Zinc–Air Batteries. Advanced Science, 2022, 9, e2103954.	5.6	20
437	A bi-component polyoxometalate-derivative cathode material showed impressive electrochemical performance for the aqueous zinc-ion batteries. Chinese Chemical Letters, 2022, 33, 3955-3960.	4.8	10
438	Regulating Interfacial Desolvation and Deposition Kinetics Enables Durable Zn Anodes with Ultrahigh Utilization of 80%. Small, 2022, 18, e2106441.	5.2	51

#	Article	IF	Citations
439	Ultrastable Zinc Anode by Simultaneously Manipulating Solvation Sheath and Inducing Oriented Deposition with PEG Stability Promoter. Small, 2022, 18, e2103345.	5.2	39
440	Thermally encapsulated phenothiazine@MWCNT cathode for aqueous zinc ion battery. Materials Advances, 2022, 3, 4310-4321.	2.6	7
441	Metal–organic-framework-derived vanadium(<scp>iii</scp>) phosphate nanoaggregates for zinc-ion battery cathodes with long-term cycle stability. Journal of Materials Chemistry A, 2022, 10, 10638-10650.	5.2	19
443	Boosting capacitive energy density of conjugated molecule modified porous graphene film as high-performance electrode materials. Electrochimica Acta, 2022, 419, 140404.	2.6	13
444	Modulating the electrocatalytic activity of N-doped carbon frameworks via coupling with dual metals for Zn–air batteries. Nano Convergence, 2022, 9, 17.	6.3	9
445	Recent progress and perspectives on advanced flexible Zn-based batteries with hydrogel electrolytes. Materials Research Letters, 2022, 10, 501-520.	4.1	20
446	Metal-organic frameworks-derived carbon modified wood carbon monoliths as three-dimensional self-supported electrodes with boosted electrochemical energy storage performance. Journal of Colloid and Interface Science, 2022, 620, 376-387.	5.0	23
447	Towards high-performance aqueous zinc-ion battery via cesium ion intercalated vanadium oxide nanorods. Chemical Engineering Journal, 2022, 442, 136349.	6.6	49
448	Bis-ammonium salts with strong chemisorption to halide ions for fast and durable aqueous redox Zn ion batteries. Nano Energy, 2022, 98, 107278.	8.2	17
452	Freestanding Metal–Organic Frameworks and Their Derivatives: An Emerging Platform for Electrochemical Energy Storage and Conversion. Chemical Reviews, 2022, 122, 10087-10125.	23.0	126
453	Two-Dimensional Conductive Polymer/V2o5 Composite with Rapid Zinc-Ion Storage Kinetics for High-Power Aqueous Zinc-Ion Battery. SSRN Electronic Journal, 0, , .	0.4	0
454	Practical Zn anodes enabled by a Ti-MOF-derived coating for aqueous batteries. Journal of Materials Chemistry A, 2022, 10, 12247-12257.	5.2	25
455	MOF nanomaterials for battery cathodes. , 2022, , 207-226.		0
456	Nonnoble metal oxides for highâ€performance Znâ€air batteries: Design strategies and future challenges. Asia-Pacific Journal of Chemical Engineering, 2022, 17, .	0.8	2
457	Battery energy storage systems and SWOT (strengths, weakness, opportunities, and threats) analysis of batteries in power transmission. Energy, 2022, 254, 123987.	4.5	74
458	High-Voltage Manganese Oxide Cathode with Two-Electron Transfer Enabled by a Phosphate Proton Reservoir for Aqueous Zinc Batteries. ACS Energy Letters, 2022, 7, 1814-1819.	8.8	33
459	Pulsed electro-synthesized tunable crystallite sizes ZnMn2O4/Mn2O3 nanocomposite as high-performance cathode material for aqueous zinc-ion batteries. Journal of Alloys and Compounds, 2022, 914, 165249.	2.8	16
460	Bifunctional Catalytic Activity of Solvothermally Synthesized CeO ₂ Nanosphere/NiO Nanoflake Nanocomposites. ACS Applied Energy Materials, 2022, 5, 5666-5679.	2.5	17

#	Article	IF	CITATIONS
461	Mechanistic Study of Controlled Zinc Electrodeposition Behaviors Facilitated by Nanoscale Electrolyte Additives at the Electrode Interface. ACS Applied Materials & Interfaces, 2022, 14, 22016-22029.	4.0	5
462	An in-depth understanding of improvement strategies and corresponding characterizations towards Zn anode in aqueous Zn-ions batteries. Green Energy and Environment, 2023, 8, 1006-1042.	4.7	15
463	Enriching Oxygen Vacancy Defects via Ag–O–Mn Bonds for Enhanced Diffusion Kinetics of δ-MnO ₂ in Zinc-Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 21159-21172.	4.0	21
464	Vanadium-based cathodes for aqueous zinc-ion batteries: Mechanism, design strategies and challenges. Energy Storage Materials, 2022, 50, 21-46.	9.5	79
465	Biomass-based diatomite coating to prepare a high-stability zinc anode for rechargeable aqueous zinc-ion batteries. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 648, 129171.	2.3	3
466	Manipulating Horizontal Zn Deposition with Graphene Interpenetrated Zn Hybrid Foils for <scp>Dendriteâ€Free</scp> Aqueous Zinc Ion Batteries. Energy and Environmental Materials, 2023, 6, .	7.3	13
467	Dual metal ions and water molecular pre-intercalated Î'-MnO2 spherical microflowers for aqueous zinc ion batteries. Journal of Colloid and Interface Science, 2022, 623, 456-466.	5.0	36
468	Recycling of Zincâ~'Carbon Batteries into MnO/ZnO/C to Fabricate Sustainable Cathodes for Rechargeable Zincâ€lon Batteries. ChemSusChem, 2022, 15, .	3.6	7
469	Hydrated ammonium manganese phosphates by electrochemically induced manganese-defect as cathode material for aqueous zinc ion batteries. Chinese Chemical Letters, 2023, 34, 107540.	4.8	3
470	Antiâ€Freezing Strategies of Electrolyte and their Application in Electrochemical Energy Devices. Chemical Record, 2022, 22, .	2.9	9
471	Review of room-temperature liquid metals for advanced metal anodes in rechargeable batteries. Energy Storage Materials, 2022, 50, 473-494.	9.5	35
472	Molten salt-based nanocomposites for thermal energy storage: Materials, preparation techniques and properties. Renewable and Sustainable Energy Reviews, 2022, 164, 112548.	8.2	12
473	The Emergence of 2D MXenes Based Znâ€lon Batteries: Recent Development and Prospects. Small, 2022, 18,	5.2	76
474	Recent Advancements in Chalcogenides for Electrochemical Energy Storage Applications. Energies, 2022, 15, 4052.	1.6	9
475	"Two Birds with One Stone― F Doping Ni–Co Hydroxide as High-Performance Cathode Material for Aqueous Zn Batteries. Nanomaterials, 2022, 12, 1780.	1.9	2
476	Recent advances in metal pyrophosphates for electrochemical supercapacitors: A review. Journal of Energy Storage, 2022, 52, 104986.	3.9	17
477	Trace tea polyphenols enabling reversible dendrite-free zinc anode. Journal of Colloid and Interface Science, 2022, 624, 450-459.	5.0	18
478	Flexible Hydrogel Compound of V2o5/Go/Pva for Enhancing Mechanical and Zinc Storage Performances. SSRN Electronic Journal, 0, , .	0.4	0

#	Article	IF	CITATIONS
479	Ammonium vanadate electrode materials with stable layered structures for rechargeable zinc ion batteries. CrystEngComm, 2022, 24, 5421-5427.	1.3	6
480	Recyclable Nanopaper Separators with Uniform Sub-20 Nm Nanopores for High-Power and High-Capacity Zinc Metal Anodes. SSRN Electronic Journal, 0, , .	0.4	0
481	Nitrogen-deficient g-C3N4 compounded with NiCo2S4 (NiCo2S4@ND-CN) as a bifunctional electrocatalyst for boosting the activity of Li-O2 batteries. Catalysis Today, 2023, 409, 23-30.	2.2	9
482	Highly stable aqueous zinc-ion batteries enabled by suppressing the dendrite and by-product formation in multifunctional Al3+ electrolyte additive. Nano Research, 2022, 15, 8039-8047.	5.8	15
483	Recent progress in MXene-based nanomaterials for highperformance aqueous zinc-ion hybrid capacitors. New Carbon Materials, 2022, 37, 508-526.	2.9	19
484	Methods for Rational Design of Advanced Znâ€Based Batteries. Small Methods, 2022, 6, .	4.6	24
485	Recent Progress and Challenges of Flexible Zn-Based Batteries with Polymer Electrolyte. Batteries, 2022, 8, 59.	2.1	11
486	Decoupling the Dynamics of Zinc Hydroxide Sulfate Precipitation/Dissolution in Aqueous Zn–MnO ₂ Batteries by Operando Optical Microscopy: A Missing Piece of the Mechanistic Puzzle. Advanced Energy Materials, 2022, 12, .	10.2	22
487	A supramolecular gel polymer electrolyte for ultralong-life zinc-ion hybrid supercapacitors. Journal of Energy Storage, 2022, 53, 105089.	3.9	18
488	MoS2 with high 1T phase content enables fast reversible zinc-ion storage via pseudocapacitance. Chemical Engineering Journal, 2022, 448, 137688.	6.6	24
489	Regulating zinc metal anodes <i>via</i> novel electrolytes in rechargeable zinc-based batteries. Journal of Materials Chemistry A, 2022, 10, 14692-14708.	5.2	12
490	Advances in the structure and composition design of zinc anodes for high performance zinc ion batteries. Sustainable Energy and Fuels, 0, , .	2.5	5
491	Challenges for large scale applications of rechargeable Zn–air batteries. Journal of Materials Chemistry A, 2022, 10, 16369-16389.	5.2	42
492	An Integrated Oxygen Electrode Derived from Flexible Single-Wall Carbon Nanotube Film for Rechargeable Zn-Air Batteries Produced by Electro-Polymerization. SSRN Electronic Journal, 0, , .	0.4	0
493	Interlayer Doping of Pseudocapacitive Hydrated Vanadium Oxide Via Mn2+ for High-Performance Aqueous Zinc-Ion Battery. SSRN Electronic Journal, 0, , .	0.4	0
494	Polymer Hydrogel Electrolytes for Flexible and Multifunctional Zincâ€ion Batteries and Capacitors. Energy and Environmental Materials, 2023, 6, .	7.3	34
495	High-Performance A-Site Deficient Perovskite Electrocatalyst for Rechargeable Zn–Air Battery. Catalysts, 2022, 12, 703.	1.6	2
496	Insights on polymeric materials for the optimization of high-capacity anodes. Composites Part B: Engineering, 2022, 243, 110131.	5.9	4

#	Article	IF	CITATIONS
497	Graphene oxide wrapped ZnMnO ₃ nanorod as advanced cathode for aqueous zinc ion batteries. Energy Technology, 0, , .	1.8	0
498	Zinc″on Hybrid Supercapacitors Employing Acetateâ€Based Waterâ€inâ€Salt Electrolytes. Small, 2022, 18, .	5.2	22
499	A novel flexible dual-functional energy storage device with switchability based on NiCo2S4-x. Journal of Power Sources, 2022, 543, 231826.	4.0	4
500	Zn Dissolutionâ^'Passivation Behavior with <scp>ZnO</scp> Formation via In Situ Characterizations. Energy and Environmental Materials, 2024, 7, .	7.3	0
501	A Review on 3D Zinc Anodes for Zinc Ion Batteries. Small Methods, 2022, 6, .	4.6	124
502	Optimization Strategies of Electrolytes for Lowâ€Temperature Aqueous Batteries. Chemical Record, 2022, 22, .	2.9	6
503	In-situ cobalt-nickel alloy catalyzed nitrogen-doped carbon nanotube arrays as superior freestanding air electrodes for flexible zinc-air and aluminum-air batteries. Applied Catalysis B: Environmental, 2022, 317, 121764.	10.8	42
504	Boost Effect of Electrolyte Engineering Toward Long-Standing Zinc Anode Via a Non-Ionic Surfactant. SSRN Electronic Journal, 0, , .	0.4	0
505	A 3d Interconnected and Trilayered Mos2/Mwcnts/Mos2 Cathode with Enlarged Interlayer Spacing for Aqueous Zinc-Ion Storage. SSRN Electronic Journal, 0, , .	0.4	0
506	Enhancement on PrBa0.5Sr0.5Co1.5Fe0.5O5 Electrocatalyst Performance in the Application of Zn-Air Battery. Catalysts, 2022, 12, 800.	1.6	4
507	A Volume Self-Regulation MoS ₂ Superstructure Cathode for Stable and High Mass-Loaded Zn-Ion Storage. ACS Nano, 2022, 16, 12095-12106.	7.3	54
508	Artificial Interphase Layer for Stabilized Zn Anodes: Progress and Prospects. Small, 2022, 18, .	5.2	49
509	Crystal Water Boosted Zn ²⁺ Transfer Kinetics in Artificial Solid Electrolyte Interphase for High-Rate and Durable Zn Anodes. ACS Applied Energy Materials, 2022, 5, 10581-10590.	2.5	3
510	High-cycling Stability of Zn/MnHCF Batteries Boosted by Non-aqueous Ethanol Electrolyte. Chemistry Letters, 2022, 51, 993-996.	0.7	3
512	Functional carbon materials for high-performance Zn metal anodes. Journal of Energy Chemistry, 2022, 75, 135-153.	7.1	70
513	Recent Progress of Non-Noble Metal Catalysts for Oxygen Electrode in Zn-Air Batteries: A Mini Review. Catalysts, 2022, 12, 843.	1.6	15
514	Rechargeable Iodine Batteries: Fundamentals, Advances, and Perspectives. ACS Nano, 2022, 16, 13554-13572.	7.3	26
515	Recyclable nanopaper separators with uniform sub-20Ânm nanopores for high-power and high-capacity zinc metal anodes. Electrochimica Acta, 2022, 430, 141081.	2.6	10

		CITATION RI	EPORT	
#	Article		IF	Citations
516	Interfacial engineering on metal anodes in rechargeable batteries. EnergyChem, 2022,	4, 100089.	10.1	12
517	Manganese-ions and polyaniline co-intercalation into vanadium oxide for stable zinc-io Journal of Power Sources, 2022, 545, 231920.	n batteries.	4.0	17
518	Flexible hydrogel compound of V2O5/GO/PVA for enhancing mechanical and zinc stora performances. Electrochimica Acta, 2022, 429, 140998.	зде	2.6	8
519	High-performance alkaline hybrid zinc batteries with heterostructure nickel/cobalt sulf of Power Sources, 2022, 545, 231902.	ide. Journal	4.0	12
520	Uniform and oriented zinc deposition induced by artificial Nb2O5 Layer for highly reve in aqueous zinc ion batteries. Energy Storage Materials, 2022, 52, 40-51.	rsible Zn anode	9.5	56
521	Electrospun MnCo2O4/carbon-nanofibers as oxygen electrode for alkaline zinc-air batt of Energy Storage, 2022, 55, 105404.	teries. Journal	3.9	9
522	The intercalation cathode materials of heterostructure MnS/MnO with dual ions defec N-doped carbon fibers for aqueous zinc ion batteries. Energy Storage Materials, 2022,		9.5	61
523	The secondary aqueous zinc-manganese battery. Journal of Energy Storage, 2022, 55,	105397.	3.9	13
524	Improved performance of Cu ion implanted δ-MnO2 cathode material for aqueous Zn-i Physics Letters, Section A: General, Atomic and Solid State Physics, 2022, 451, 12840	on batteries. 0.	0.9	7
525	Advanced MOF-derived carbon-based non-noble metal oxygen electrocatalyst for next- rechargeable Zn-air batteries. Coordination Chemistry Reviews, 2022, 473, 214839.	generation	9.5	36
526	Pt/C as a bifunctional ORR/iodide oxidation reaction (IOR) catalyst for Zn-air batteries unprecedentedly high energy efficiency of 76.5%. Applied Catalysis B: Environmental,		10.8	31
527	Self-healing of surface defects on Zn electrode for stable aqueous zinc-ion batteries via the electrode/electrolyte interphases. Journal of Colloid and Interface Science, 2023, 6		5.0	18
528	Ultrastable hydrated vanadium dioxide cathodes for high-performance aqueous zinc io with H ⁺ /Zn ²⁺ Co-insertion mechanism. Journal of Materials 10, 22194-22204.		5.2	13
529	Printed Electronics Applications: Energy Conversion and Storage Devices. , 2022, , 445	-515.		0
530	A two-dimensional conductive polymer/V ₂ O ₅ composite with storage kinetics for high-power aqueous zinc-ion batteries. Nanoscale, 2022, 14, 1201		2.8	7
531	A Li ⁺ and PANI co-intercalation strategy for hydrated V ₂ O <s enhance zinc ion storage performance. Journal of Materials Chemistry A, 2022, 10, 18</s 	ub>5 to 962-18971.	5.2	10
532	Tungsten-oxygen bond pre-introduced VO2(B) nanoribbons enable fast and stable zind ability. Journal of Colloid and Interface Science, 2023, 629, 928-936.	: ion storage	5.0	6
533	In-situ oriented oxygen-defect-rich Mn N O via nitridation and electrochemical oxidatic industrial-scale Mn2O3 to achieve high-performance aqueous zinc ion battery. Journal Chemistry, 2023, 76, 11-18.	n based on of Energy	7.1	22

#	Article	IF	CITATIONS
534	Recent advances in zinc-ion hybrid energy storage: Coloring high-power capacitors with battery-level energy. Chinese Chemical Letters, 2023, 34, 107784.	4.8	14
535	Improved Interface Stability and Zincâ€lons Distribution Achieved by Functional Protective Layer Containing Abundant Oxygen Sites and Regular Channels for Longâ€Life Zincâ€Metal Anodes. Batteries and Supercaps, 2022, 5, .	2.4	3
536	Enhancing <scp>I⁰</scp> /I ^{â^'} Conversion Efficiency by Starch Confinement in Zinc–lodine Battery. Energy and Environmental Materials, 2024, 7, .	7.3	9
537	Recent Advances of Transition Metal Chalcogenides as Cathode Materials for Aqueous Zinc-Ion Batteries. Nanomaterials, 2022, 12, 3298.	1.9	5
538	A Molecularâ€ s ieve Electrolyte Membrane enables Separatorâ€Free Zinc Batteries with Ultralong Cycle Life. Advanced Materials, 2022, 34, .	11.1	68
539	Deciphering H+/Zn2+ co-intercalation mechanism of MOF-derived 2D MnO/C cathode for long cycle life aqueous zinc-ion batteries. Rare Metals, 2022, 41, 3729-3739.	3.6	34
540	Advanced polymer-based electrolytes in zinc–air batteries. EScience, 2022, 2, 453-466.	25.0	117
541	Defect engineering of vanadium-based electrode materials for zinc ion battery. Chinese Chemical Letters, 2023, 34, 107839.	4.8	20
542	Characterizing battery materials and electrodes via <i>in situ</i> / <i>operando</i> transmission electron microscopy. Chemical Physics Reviews, 2022, 3, .	2.6	9
543	Lightâ€Assisted Metalâ€Air Batteries: Progress, Challenges, and Perspectives. Angewandte Chemie, 0, , .	1.6	3
544	Lightâ€Assisted Metal–Air Batteries: Progress, Challenges, and Perspectives. Angewandte Chemie - International Edition, 2022, 61, .	7.2	29
545	Lamellar-assembled PdNi super-nanosheets as effective oxygen redox dual-electrocatalysts for rechargeable Zn-air batteries. Nano Research, 2023, 16, 2163-2169.	5.8	2
547	Opportunities of Flexible and Portable Electrochemical Devices for Energy Storage: Expanding the Spotlight onto Semi-solid/Solid Electrolytes. Chemical Reviews, 2022, 122, 17155-17239.	23.0	67
548	Synthesis strategies of optimized cathodes and mechanisms for zinc ion capacitors. Materials Today Energy, 2022, 30, 101188.	2.5	6
549	Active cation-integration high-entropy Prussian blue analogues cathodes for efficient Zn storage. Nano Research, 2023, 16, 2486-2494.	5.8	16
550	Dispersed Zn Nucleation and Growth Induced by Functional Nano-TiO2 Particles for a Stable Zn Metal Anode. Journal of Electronic Materials, 2022, 51, 6645-6653.	1.0	3
551	Two-in-one strategy to construct bifunctional oxygen electrocatalysts for rechargeable Zn-air battery. Chinese Journal of Catalysis, 2022, 43, 2906-2912.	6.9	2
552	Electrochemical one-step synthesis of Mn3O4 with tunable oxygen defects for high-performance aqueous zinc-ion batteries. Journal of Alloys and Compounds, 2023, 934, 167933.	2.8	4

#	Article	IF	CITATIONS
553	Noble metal-free high-entropy oxide/Co-N-C bifunctional electrocatalyst enables highly reversible and durable Zn-air batteries. Applied Surface Science, 2023, 610, 155624.	3.1	15
554	A novel bifunctional zinc gluconate electrolyte for a stable Zn anode. Chemical Engineering Journal, 2023, 454, 140364.	6.6	21
555	Preparation and interface stability of alginate-based gel polymer electrolyte for rechargeable aqueous zinc ion batteries. Journal of Electroanalytical Chemistry, 2022, 927, 116968.	1.9	4
556	Inhibiting corrosion and side reactions of zinc metal anode by nano-CaSiO ₃ coating towards high-performance aqueous zinc-ion batteries. Nanotechnology, 2023, 34, 085402.	1.3	7
557	Recent progress in flexible Znâ€ion hybrid supercapacitors: Fundamentals, fabrication designs, and applications. , 2023, 5, .		26
558	Apple Pectin-Based Hydrogel Electrolyte for Energy Storage Applications. ACS Sustainable Chemistry and Engineering, 2022, 10, 15802-15812.	3.2	5
559	An overview of metal-air batteries, current progress, and future perspectives. Journal of Energy Storage, 2022, 56, 106075.	3.9	12
560	Tuning NiCo2O4 bifunctionality with nitrogen-doped graphene nanoribbons in oxygen electrocatalysis for zinc-air battery application. Journal of Electroanalytical Chemistry, 2023, 928, 117000.	1.9	9
561	Boosting zinc storage in potassium-birnessite via organic-inorganic electrolyte strategy with slight N-methyl-2-pyrrolidone additive. Energy Storage Materials, 2023, 54, 784-793.	9.5	2
562	Simultaneous manipulation of electron/Zn2+ ion flux and desolvation effect enabled by in-situ built ultra-thin oxide-based artificial interphase for controlled deposition of zinc metal anodes. Chemical Engineering Journal, 2023, 456, 141015.	6.6	19
563	Manganese-based cathode materials for aqueous rechargeable zinc-ion batteries: recent advance and future prospects. Materials Today Chemistry, 2023, 27, 101294.	1.7	8
564	Few-layer δ-MnO2 nanosheets grown on three-dimensional N-doped hierarchically porous carbon networks for long-life aqueous zinc ion batteries. Carbon, 2023, 203, 326-336.	5.4	10
565	Multifunctional SEI-like structure coating stabilizing Zn anodes at a large current and capacity. Energy and Environmental Science, 2023, 16, 275-284.	15.6	100
566	An ion exchange membrane-free, ultrastable zinc-iodine battery enabled by functionalized graphene electrodes. Energy Storage Materials, 2023, 55, 680-690.	9.5	27
567	Comprehensive review on latest advances on rechargeable batteries. Journal of Energy Storage, 2023, 57, 106204.	3.9	16
568	Facile synthesis of uniformly coated ZnO@Bi2O3 composites anode for long-cycle-life zinc–nickel battery. Journal of Energy Storage, 2023, 58, 106350.	3.9	7
569	High energy storage performance MnSe2 cathode by one-step deposition strategy in aqueous zinc-ion batteries. Journal of Alloys and Compounds, 2023, 937, 168424.	2.8	1
570	Zinc Batteries: Basics, Materials Functions, and Applications. , 2022, , 1-37.		Ο

#	Article	IF	CITATIONS
571	Mn ²⁺ /l [–] Hybrid Cathode with Superior Conversion Efficiency for Ultrahigh-Areal-Capacity Aqueous Zinc Batteries. ACS Applied Materials & Interfaces, 2022, 14, 53627-53635.	4.0	3
572	Pre-removing partial ammonium ions from the interlayer of ammonium vanadate with acid treating for quasi-solid-state flexible zinc ion batteries. Chemical Engineering Journal, 2023, 455, 140679.	6.6	14
573	Two-Dimensional Materials for Dendrite-Free Zinc Metal Anodes in Aqueous Zinc Batteries. Batteries, 2022, 8, 293.	2.1	4
574	Electrochemically Induced Defects Promotional High-Performance Binder-Free MnO@CC Cathodes for Flexible Quasi-Solid-State Zinc-Ion Battery. ACS Applied Energy Materials, 2022, 5, 15510-15519.	2.5	5
575	Expanding Layer Spacing of Carbonâ€Coated Vanadium Oxide via Ammonium Ions for Fast Electrochemical Kinetics in Aqueous Zincâ€ion Batteries. Energy Technology, 2023, 11, .	1.8	4
576	Recent Advances of Transition Metal Sulfides/Selenides Cathodes for Aqueous Zincâ€lon Batteries. Advanced Energy Materials, 2023, 13, .	10.2	35
577	Recent Progress of Conductive Metal–Organic Frameworks for Electrochemical Energy Storage. Transactions of Tianjin University, 2023, 29, 136-150.	3.3	3
578	A water-gating and zinc-sieving lignocellulose nanofiber separator for dendrite-free rechargeable aqueous zinc ion battery. Chemical Engineering Journal, 2023, 457, 141160.	6.6	15
579	Proton storage chemistry in aqueous zincâ€organic batteries: A review. InformaÄnÃ-Materiály, 2023, 5, .	8.5	29
580	An Overview of Challenges and Strategies for Stabilizing Zinc Anodes in Aqueous Rechargeable Zn-Ion Batteries. Batteries, 2023, 9, 41.	2.1	11
581	Stable Zn electrodes enabled by an ultra-thin Zn phosphate protective layer. Journal of Materials Chemistry A, 2023, 11, 3051-3059.	5.2	10
582	Regulation of Released Alkali from Gel Polymer Electrolyte in Quasiâ€5olid State Zn–Air Battery. Small, 0, , 2206814.	5.2	2
583	Stable and Dendrite-Free Zn Anode Enabled by a PEDOT:PSS Layer for High-Performance Zn-Ion Capacitors. Industrial & Engineering Chemistry Research, 2023, 62, 1350-1357.	1.8	2
584	Review—Study on Catalyst in Zn-Air Batteries: Bibliometric Method. Journal of the Electrochemical Society, 0, , .	1.3	0
585	Moisture-activated deep eutectic electrolyte enabling stable metal Zn anode. Energy Storage Materials, 2023, 56, 218-226.	9.5	20
586	Dendriteâ€Free Engineering toward Efficient Zinc Storage: Recent Progress and Future Perspectives. Chemistry - A European Journal, 2023, 29, .	1.7	18
587	Tailored ZnF2/ZnS-rich interphase for reversible aqueous Zn batteries. Nano Research, 2023, 16, 4996-5005.	5.8	15
588	Activating zinc-ion storage in MXene through Mn ⁴⁺ loading on surface terminations. New Journal of Chemistry, 0, , .	1.4	Ο

#	Article	IF	CITATIONS
589	Constructing advanced vanadium oxide cathode materials for aqueous zinc-ion batteries via the micro-nano morphology regulation strategies. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2023, 662, 130953.	2.3	2
590	Surface Engineering for Ultrathin Metal Anodes Enabling High-Performance Zn-Ion Batteries. ACS Applied Materials & Interfaces, 2023, 15, 5161-5171.	4.0	5
591	Nanostructured Zn Mn3‒O4 thin films by pulsed laser deposition: A spectroscopic and electrochemical study towards the application in aqueous Zn-ion batteries. Electrochimica Acta, 2023, 442, 141909.	2.6	3
592	Manganese ion batteries: LiV3O8 nanorods as a robust and long-life cathode module. Journal of Power Sources, 2023, 558, 232542.	4.0	1
593	Flexible, free-standing and dendrite-free iron metal anodes enabled by MXene frameworks for aqueous Fe metal dual-ion batteries. Chemical Engineering Journal, 2023, 458, 141388.	6.6	13
594	Constructing metal-organic framework-derived carbon incorporated V2O5 nanowire-bundle arrays on carbon nanotube fiber as advanced cathodes for high-performance wearable zinc-ion batteries. Electrochimica Acta, 2023, 440, 141762.	2.6	8
595	Surface-preferred crystal plane induced by supramolecular cyclodextrin additive for highly reversible aqueous zinc metal batteries. Chemical Engineering Journal, 2023, 457, 141250.	6.6	11
596	Interlayer doping of pseudocapacitive hydrated vanadium oxide via Mn2+ for high-performance aqueous zinc-ion battery. Electrochimica Acta, 2023, 441, 141810.	2.6	4
597	Suppressing zinc dendrite growth in aqueous battery via Zn–Al alloying with spatially confined zinc reservoirs. Journal of Power Sources, 2023, 558, 232628.	4.0	12
598	Solid-state synthesis of ZnMn2O4 spinel: Sequence of phase transformations, thermal stability, localization and charge state of manganese ions in the intermediate and final reaction products. Solid State Sciences, 2023, 136, 107110.	1.5	8
599	Design and construction of poly(benzoquinone-diamine)/Ti3C2TX hybrid electrode toward advanced aqueous zinc-ion batteries. Composites Part B: Engineering, 2023, 252, 110517.	5.9	6
600	Viable defect engineering with templates into metal oxides. , 2023, , 355-385.		0
601	Insights on Artificial Interphases of Zn and Electrolyte: Protection Mechanisms, Constructing Techniques, Applicability, and Prospective. Advanced Functional Materials, 2023, 33, .	7.8	53
602	How About Vanadiumâ€Based Compounds as Cathode Materials for Aqueous Zinc Ion Batteries?. Advanced Science, 2023, 10, .	5.6	45
603	Valid design and evaluation of cathode and anode materials of aqueous zinc ion batteries with high-rate capability and cycle stability. Nanoscale, 2023, 15, 3737-3748.	2.8	5
604	One-Dimensional π–d Conjugated Conductive Metal–Organic Framework with Dual Redox-Active Sites for High-Capacity and Durable Cathodes for Aqueous Zinc Batteries. ACS Nano, 2023, 17, 3077-3087.	7.3	31
605	Protruding N-doped carbon nanotubes on elongated hexagonal Co–N–C nanoplates as bifunctional oxygen electrocatalysts for Zn–air batteries. Materials Chemistry Frontiers, 2023, 7, 946-954.	3.2	4
606	Key approaches and challenges in fabricating advanced flexible zinc-ion batteries with functional hydrogel electrolytes. Energy Storage Materials, 2023, 56, 351-393.	9.5	32

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#	Article	IF	CITATIONS
607	Rose-shaped VS ₂ nanosheets as cathode materials for rechargeable zinc ion batteries. CrystEngComm, 2023, 25, 1986-1992.	1.3	3
608	A trifunctional Co _{0.85} Se/NC collaborated electrocatalyst enables a self-powered energy system for uninterrupted H ₂ production. Journal of Materials Chemistry A, 2023, 11, 8024-8037.	5.2	13
609	Electrolytes for Zn Batteries: Deep Eutectic Solvents in Polymer Gels. ChemSusChem, 2023, 16, .	3.6	0
610	Green Environmentally Friendly "Zn(CH ₃ SO ₃) ₂ ―Electrolyte for Aqueous Zinc-Ion Batteries. ACS Applied Materials & Interfaces, 2023, 15, 20089-20099.	4.0	6
611	Recent progress and challenges of Zn anode modification materials in aqueous Zn-ion batteries. Coordination Chemistry Reviews, 2023, 485, 215142.	9.5	31
612	A three-dimensional interconnected molybdenum disulfide/multi-walled carbon nanotubes cathode with enlarged interlayer spacing for aqueous zinc-ion storage. Journal of Colloid and Interface Science, 2023, 639, 292-301.	5.0	2
613	Zn@cellulose nanofibrils composite three-dimensional carbon framework for long-life Zn anode. Industrial Crops and Products, 2023, 194, 116343.	2.5	13
614	Microfluidic-oriented assembly of Mn3O4@C/GFF cathode with multiscale synergistic structure for high-performance aqueous zinc-ion batteries. Carbon, 2023, 208, 247-254.	5.4	3
615	Mn pre-intercalated hydrated vanadium pentoxide activated by nitrogen plasma for enhanced zinc ion storage. Journal of Energy Storage, 2023, 63, 106988.	3.9	5
616	Fabrication and morphological effect of waxberry-like carbon for high-performance aqueous zinc-ion electrochemical storage. Carbon, 2023, 205, 226-235.	5.4	7
617	Voltage induced lattice contraction enabling superior cycling stability of MnO2 cathode in aqueous zinc batteries. Energy Storage Materials, 2023, 56, 524-531.	9.5	11
618	Weakly Solvating Effect Spawning Reliable Interfacial Chemistry for Aqueous Zn/Na Hybrid Batteries. Advanced Energy Materials, 2023, 13, .	10.2	21
619	Designing interstitial boronâ€doped tunnelâ€ŧype vanadium dioxide cathode for enhancing zinc ion storage capability. , 2023, 5, .		13
620	Bioâ€inspired ionic skins for smart medicine. , 2023, 2, .		3
621	Electron transmission matrix and anion regulation strategy-derived oxygen-deficient δ-MnO ₂ for a high-rate and long-life aqueous zinc-ion battery. Nanoscale, 2023, 15, 6353-6362.	2.8	11
622	Outstanding platinum group metal-free bifunctional catalysts for rechargeable zinc-air batteries. Electrochimica Acta, 2023, 446, 142126.	2.6	17
623	Complementary Operando Electrochemical Quartz Crystal Microbalance and UV/Vis Spectroscopic Studies: Acetate Effects on Zincâ€Manganese Batteries. ChemSusChem, 2023, 16, .	3.6	1
624	Progress and perspective on multi-dimensional structured carbon nanomaterials for cathodes in aqueous zinc-based energy storage. Materials Research Letters, 2023, 11, 481-516.	4.1	5

#	Article	IF	CITATIONS
625	Bifunctional oxygen electrocatalysts based on non-critical raw materials: Carbon nanostructures and iron-doped manganese oxide nanowires. Catalysis Today, 2023, 420, 114083.	2.2	3
626	Progress and Perspectives for Solarâ€Driven Water Electrolysis to Produce Green Hydrogen. Advanced Energy Materials, 2023, 13, .	10.2	28
627	Research progress of "rocking chair―type zinc-ion batteries with zinc metal-free anodes. Chinese Chemical Letters, 2023, 34, 108307.	4.8	9
628	Fluoride-Based Stable Quasi-Solid-State Zinc Metal Battery with Superior Rate Capability. ACS Applied Materials & Interfaces, 2023, 15, 15574-15584.	4.0	2
629	Hybrid Aqueous/Nonâ€aqueous Electrolytes for Lithiumâ€lon and Zincâ€lon Batteries: A Miniâ€Review. Batteries and Supercaps, 2023, 6, .	2.4	3
630	Stable zinc metal anode with an ultrathin carbon coating for zinc-ion batteries. Journal of Electroanalytical Chemistry, 2023, 936, 117357.	1.9	4
631	MXene-Based Materials for Multivalent Metal-Ion Batteries. Batteries, 2023, 9, 174.	2.1	10
632	Recent advances in two-dimensional MXenes for zinc-ion batteries. Materials Chemistry Frontiers, 2023, 7, 2373-2404.	3.2	5
633	Heteroatom-doped carbon materials from bimetal covalent organic polymers as efficient bifunctional electrocatalysts in oxygen reduction and oxygen evolution reactions. Materials Today Sustainability, 2023, 22, 100389.	1.9	1
634	Stabilizing zinc anodes for long-lifespan zinc–nickel battery through the in-situ construction of zincophilic interface layer. Energy Storage Materials, 2023, 58, 311-321.	9.5	8
635	Metal/covalent organic frameworks for aqueous rechargeable zinc-ion batteries. Science China Chemistry, 2024, 67, 247-259.	4.2	9
636	Water Confinement by a Zn ²⁺ -Conductive Aqueous/Inorganic Hybrid Electrolyte for High-Voltage Zinc-Ion Batteries. ACS Applied Energy Materials, 2023, 6, 3705-3713.	2.5	2
637	An integrated oxygen electrode derived from a flexible single-walled carbon nanotube film for rechargeable Zn-air batteries produced by electropolymerization. NPG Asia Materials, 2023, 15, .	3.8	5
638	Molecular Engineering on MoS ₂ Interlayer for High-Capacity and Rapid-Charging Aqueous Ion Batteries. Nanoscale Advances, 0, , .	2.2	0
639	Controlled Solvation Structure of a Zn Ion in an Aqueous Electrolyte by Amine Additives for Long Cycle Life of a Large Capacity Zn-Air Rechargeable Battery. Journal of Physical Chemistry C, 2023, 127, 6619-6628.	1.5	2
640	Recent advances in supramolecular self-assembly derived materials for high-performance supercapacitors. Nanoscale Advances, 2023, 5, 2394-2412.	2.2	3
641	Recent advances in zinc–air batteries: self-standing inorganic nanoporous metal films as air cathodes. Chemical Communications, 2023, 59, 5823-5838.	2.2	1
645	Strategies for addressing the challenges of aqueous zinc batteries enabled by functional separators. Journal of Materials Chemistry A, 2023, 11, 11031-11047.	5.2	5

#	Article	IF	CITATIONS
646	Zinc Batteries: Basics, Materials Functions, and Applications. , 2023, , 2331-2367.		1
650	Recent advances of Na3V2(PO4)3 as cathode for rechargeable zinc-based batteries. Carbon Letters, 2023, 33, 989-1012.	3.3	2
671	Advances in organic cathode materials for aqueous multivalent metal-ion storage. Materials Chemistry Frontiers, 2023, 7, 2731-2749.	3.2	28
675	A Near 0 V and Low-Strain Intercalative Anode for Aqueous Zinc-Ion Batteries. ACS Energy Letters, 2023, 8, 3171-3179.	8.8	5
698	Recent advances in aqueous zinc–sulfur batteries: overcoming challenges for sustainable energy storage. Journal of Materials Chemistry A, 2023, 11, 18029-18045.	5.2	1
707	Polymer Composites for Energy Storage Application. , 2023, , 87-122.		Ο
712	On Energy Storage Chemistry of Aqueous Zn-Ion Batteries: From Cathode to Anode. Electrochemical Energy Reviews, 2023, 6, .	13.1	7
717	Progress in Electrolyte Engineering of Aqueous Batteries in a Wide Temperature Range. Transactions of Tianjin University, 0, , .	3.3	1
781	Roadmap for rechargeable batteries: present and beyond. Science China Chemistry, 0, , .	4.2	0
812	High-concentration Electrolytes for Rechargeable Batteries. , 2024, , 293-328.		Ο