Xian-Wen Wu

List of Publications by Year in descending order

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94 papers	6,738 citations	57758 44 h-index	62596 80 g-index
95 all docs	95 docs citations	95 times ranked	3926 citing authors

#	Article	IF	Citations
1	Manipulating the ion-transfer kinetics and interface stability for high-performance zinc metal anodes. Energy and Environmental Science, 2020, 13, 503-510.	30.8	828
2	Spatially homogeneous copper foam as surface dendrite-free host for zinc metal anode. Chemical Engineering Journal, 2020, 379, 122248.	12.7	308
3	Green-low-cost rechargeable aqueous zinc-ion batteries using hollow porous spinel ZnMn₂O₄as the cathode material. Journal of Materials Chemistry A, 2017, 5, 17990-17997.	10.3	263
4	Multi-mode surface plasmon resonance absorber based on dart-type single-layer graphene. RSC Advances, 2022, 12, 7821-7829.	3.6	226
5	Ultra-wideband and wide-angle perfect solar energy absorber based on Ti nanorings surface plasmon resonance. Physical Chemistry Chemical Physics, 2021, 23, 17041-17048.	2.8	219
6	Thermal tuning of terahertz metamaterial absorber properties based on VO₂. Physical Chemistry Chemical Physics, 2022, 24, 8846-8853.	2.8	197
7	Preparation of core-shell heterojunction photocatalysts by coating CdS nanoparticles onto Bi4Ti3O12 hierarchical microspheres and their photocatalytic removal of organic pollutants and Cr(VI) ions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 633, 127918.	4.7	189
8	A four-band and polarization-independent BDS-based tunable absorber with high refractive index sensitivity. Physical Chemistry Chemical Physics, 2021, 23, 26864-26873.	2.8	189
9	A switchable terahertz device combining ultra-wideband absorption and ultra-wideband complete reflection. Physical Chemistry Chemical Physics, 2022, 24, 2527-2533.	2.8	186
10	Electrolyte additive engineering for aqueous Zn ion batteries. Energy Storage Materials, 2022, 51, 733-755.	18.0	179
11	Graphene-Wrapped MnO/C Composites by MOFs-Derived as Cathode Material for Aqueous Zinc ion Batteries. Electrochimica Acta, 2020, 353, 136570.	5.2	168
12	A hafnium oxide-coated dendrite-free zinc anode for rechargeable aqueous zinc-ion batteries. Journal of Colloid and Interface Science, 2021, 599, 467-475.	9.4	165
13	Realization of 18.97% theoretical efficiency of 0.9 Î¼m thick c-Si/ZnO heterojunction ultrathin-film solar cells via surface plasmon resonance enhancement. Physical Chemistry Chemical Physics, 2022, 24, 4871-4880.	2.8	156
14	The excellent electrochemical performances of ZnMn2O4/Mn2O3: The composite cathode material for potential aqueous zinc ion batteries. Journal of Electroanalytical Chemistry, 2019, 832, 69-74.	3.8	147
15	Issues and Opportunities Facing Aqueous Mn²⁺/MnO₂â€based Batteries. ChemSusChem, 2022, 15, .	6.8	129
16	The electrochemical performance of aqueous rechargeable battery of Zn/Na0.44MnO2 based on hybrid electrolyte. Journal of Power Sources, 2016, 336, 35-39.	7.8	127
17	Synthesis of carnation flower-like Bi2O2CO3 photocatalyst and its promising application for photoreduction of Cr(VI). Advanced Powder Technology, 2022, 33, 103481.	4.1	124
18	The enhanced electrochemical performance of LiNi0.6Co0.2Mn0.2O2 cathode materials by low temperature fluorine substitution. Electrochimica Acta, 2013, 95, 112-118.	5.2	121

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19	The electrochemical performance improvement of LiMn2O4/Zn based on zinc foil as the current collector and thiourea as an electrolyte additive. Journal of Power Sources, 2015, 300, 453-459.	7.8	113
20	MoS2/SnS@C hollow hierarchical nanotubes as superior performance anode for sodium-ion batteries. Nano Energy, 2021, 90, 106568.	16.0	112
21	Highly Reversible Phase Transition Endows V₆O₁₃ with Enhanced Performance as Aqueous Zincâ€ion Battery Cathode. Energy Technology, 2019, 7, 1900022.	3.8	108
22	Nanosilica/carbon composite spheres as anodes in Li-ion batteries with excellent cycle stability. Journal of Materials Chemistry A, 2015, 3, 1476-1482.	10.3	101
23	Template-free synthesis of Bi₂O₂CO₃ hierarchical nanotubes self-assembled from ordered nanoplates for promising photocatalytic applications. Physical Chemistry Chemical Physics, 2022, 24, 8279-8295.	2.8	100
24	Comparative investigation on synthesis, morphological tailoring and photocatalytic activities of Bi2O2CO3 nanostructures. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 644, 128758.	4.7	95
25	Structural perspective on revealing energy storage behaviors of silver vanadate cathodes in aqueous zinc-ion batteries. Acta Materialia, 2019, 180, 51-59.	7.9	86
26	Lithium-rich manganese-based cathode materials with highly stable lattice and surface enabled by perovskite-type phase-compatible layer. Nano Energy, 2021, 88, 106288.	16.0	85
27	Reversible Zn-driven reduction displacement reaction in aqueous zinc-ion battery. Journal of Materials Chemistry A, 2019, 7, 7355-7359.	10.3	84
28	Facile synthesis of NaVPO4F/C cathode with enhanced interfacial conductivity towards long-cycle and high-rate sodium-ion batteries. Chemical Engineering Journal, 2019, 357, 458-462.	12.7	83
29	Highly Dispersed Cobalt Nanoparticles Embedded in Nitrogen-Doped Graphitized Carbon for Fast and Durable Potassium Storage. Nano-Micro Letters, 2021, 13, 21.	27.0	80
30	Surfactant-assisted solvothermal synthesis of NiCo₂O₄ as an anode for lithium-ion batteries. RSC Advances, 2017, 7, 36909-36916.	3.6	79
31	A stable fluoride-based interphase for a long cycle Zn metal anode in an aqueous zinc ion battery. Journal of Materials Chemistry A, 2022, 10, 14399-14410.	10.3	79
32	The MnO@N-doped carbon composite derived from electrospinning as cathode material for aqueous zinc ion battery. Journal of Electroanalytical Chemistry, 2020, 873, 114368.	3.8	75
33	xLi3V2(PO4)3Â·LiVPO4F/C composite cathode materials for lithium ion batteries. Electrochimica Acta, 2013, 87, 224-229.	5.2	74
34	Phenoxy Radicalâ€Induced Formation of Dualâ€Layered Protection Film for Highâ€Rate and Dendriteâ€Free Lithiumâ€Metal Anodes. Angewandte Chemie - International Edition, 2021, 60, 26718-26724.	13.8	69
35	Neurons-system-like structured SnS2/CNTs composite for high-performance sodium-ion battery anode. Rare Metals, 2021, 40, 1383-1390.	7.1	67
36	Highly Flexible and Porous Nanoparticle-Loaded Films for Dye Removal by Graphene Oxideâ€“Fungus Interaction. ACS Applied Materials & Interfaces, 2016, 8, 34638-34647.	8.0	63

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37	Micro/nanostructured TiNb₂O₇-related electrode materials for high-performance electrochemical energy storage: recent advances and future prospects. Journal of Materials Chemistry A, 2020, 8, 18425-18463.	10.3	59
38	Raising Lithium Storage Performances of NaTi₂(PO₄)₃ by Nitrogen and Sulfur Dual-Doped Carbon Layer. Journal of the Electrochemical Society, 2020, 167, 020550.	2.9	58
39	Binder-free flexible LiMn2O4/carbon nanotube network as high power cathode for rechargeable hybrid aqueous battery. Journal of Power Sources, 2016, 326, 498-504.	7.8	53
40	Cryptomelane-Type KMn8O16 as Potential Cathode Material â€" for Aqueous Zinc Ion Battery. Frontiers in Chemistry, 2018, 6, 352.	3.6	53
41	Construction of highly conductive network for improving electrochemical performance of lithium iron phosphate. Electrochimica Acta, 2019, 305, 563-570.	5.2	52
42	Fabrication of F-doped, C-coated NiCo2O4 nanocomposites and its electrochemical performances for lithium-ion batteries. Solid State Ionics, 2019, 334, 48-55.	2.7	52
43	Layered manganese dioxide nanoflowers with Cu2+and Bi3+ intercalation as high-performance cathode for aqueous zinc-ion battery. Journal of Colloid and Interface Science, 2022, 616, 101-109.	9.4	49
44	An inorganic-rich SEI induced by LiNO₃ additive for a stable lithium metal anode in carbonate electrolyte. Chemical Communications, 2021, 57, 9232-9235.	4.1	48
45	Synthesis and electrochemical performance of Li1+xTi2â^'xFex(PO4)3/C anode for aqueous lithium ion battery. Advanced Powder Technology, 2020, 31, 1359-1364.	4.1	47
46	A simple method of preparing graphene-coated Li[Li0.2Mn0.54Ni0.13Co0.13]O2 for lithium-ion batteries. Materials Letters, 2013, 91, 261-264.	2.6	43
47	Pt embedded Ni3Se2@NiOOH core-shell dendrite-like nanoarrays on nickel as bifunctional electrocatalysts for overall water splitting. Science China Materials, 2019, 62, 1096-1104.	6.3	43
48	Improved Electrochemical Performance of 0.5Li2MnO3Â·0.5LiNi0.5Mn0.5O2 Cathode Materials for Lithium Ion Batteries Synthesized by Ionic-Liquid-Assisted Hydrothermal Method. Frontiers in Chemistry, 2020, 8, 729.	3.6	36
49	In Situ Synthesis of CuO and Cu Nanostructures with Promising Electrochemical and Wettability Properties. Small, 2014, 10, 935-943.	10.0	34
50	Enhanced performance of <scp>Liâ€ S</scp> battery by constructing inner conductive network and outer adsorption layer <scp>sulfurâ€carbon</scp> composite. International Journal of Energy Research, 2021, 45, 6002-6014.	4.5	33
51	A facile coating strategy for high stability aqueous zinc ion batteries: Porous rutile nano-TiO2 coating on zinc anode. Surface and Coatings Technology, 2021, 421, 127367.	4.8	31
52	Enhanced electrochemical performances of Li2MnO3 cathode materials by Al doping. Ionics, 2018, 24, 83-89.	2.4	30
53	Effect of lithium difluoro(oxalato)borate and heptamethyldisilazane with different concentrations on cycling performance of LiMn2O4. Journal of Power Sources, 2012, 204, 133-138.	7.8	28
54	Improved electrochemical performance of Li1.2Ni0.2Mn0.6O2 cathode material for lithium ion batteries synthesized by the polyvinyl alcohol assisted sol-gel method. Ceramics International, 2017, 43, 2320-2324.	4.8	28

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55	Synthesis and electrochemical characterization of Mg-doped Li-rich Mn-based cathode material. Ceramics International, 2016, 42, 8833-8838.	4.8	26
56	Optical and magnetic properties of small-size coreâ€“shell Fe3O4@C nanoparticles. Materials Today Chemistry, 2021, 22, 100556.	3.5	22
57	Ti-substituted O3-type layered oxide cathode material with high-voltage stability for sodium-ion batteries. Journal of Colloid and Interface Science, 2022, 622, 1037-1044.	9.4	22
58	Modification of Li[Li0.2Mn0.54Ni0.13Co0.13]O2 cathode with Î±-MoO3 via a simple wet chemical coating process. Applied Surface Science, 2019, 479, 1277-1286.	6.1	21
59	Bi/C nanosheet microspheres with an open pore structure as anodes for sodium ion batteries with high capacity, excellent rate performance and long cycle life. Journal of Materials Chemistry A, 2021, 9, 22364-22372.	10.3	21
60	Î³-Al2O3 coating layer confining zinc dendrite growth for high stability aqueous rechargeable zinc-ion batteries. Surface and Coatings Technology, 2021, 427, 127813.	4.8	21
61	Synergistic chemical and electrochemical strategy for high-performance Zn//MnO2 batteries. Chinese Chemical Letters, 2023, 34, 107493.	9.0	21
62	Improvement on the storage performance of LiMn2O4 with the mixed additives of ethanolamine and heptamethyldisilazane. Applied Surface Science, 2013, 268, 349-354.	6.1	20
63	Capacity fading reason of LiNi0.5Mn1.5O4 with commercial electrolyte. Ionics, 2013, 19, 379-383.	2.4	19
64	The Li3V2(PO4)3@C materials prepared by freeze-drying assisted sol-gel method for an aqueous zinc ion hybrid battery. Journal of Electroanalytical Chemistry, 2021, 900, 115685.	3.8	19
65	Synthesis and characterization of manganese-rich transition metal carbonate precursor in the presence of ethanol. Advanced Powder Technology, 2015, 26, 1712-1718.	4.1	18
66	Sandwich-structured graphene sheets@LiNi0.5Mn1.5O4@graphene sheets composites as cathode materials for lithium ion batteries with high rate performance. Ceramics International, 2016, 42, 14141-14147.	4.8	17
67	Silicon/graphene/carbon hierarchical structure nanofibers for high performance lithium ion batteries. Materials Letters, 2017, 200, 128-131.	2.6	17
68	Encapsulation of N-doped carbon layer via in situ dopamine polymerization endows nanostructured NaTi2(PO4)3 with superior lithium storage performance. Ceramics International, 2020, 46, 4402-4409.	4.8	16
69	Phenoxy Radicalâ€Induced Formation of Dualâ€Layered Protection Film for Highâ€Rate and Dendriteâ€Free Lithiumâ€Metal Anodes. Angewandte Chemie, 2021, 133, 26922-26928.	2.0	15
70	SnS particles anchored on Ti3C2 nanosheets as high-performance anodes for lithium-ion batteries. Journal of Alloys and Compounds, 2022, 893, 162089.	5.5	14
71	New insight into the modification of Li-rich cathode material by stannum treatment. Ceramics International, 2017, 43, 10919-10926.	4.8	13
72	Fabrication of urchin-like NiCo2O4 microspheres assembled by using SDS as soft template for anode materials of Lithium-ion batteries. Ionics, 2018, 24, 1329-1337.	2.4	12

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73	Magnesium-doped Li[Li0.2Mn0.54Ni0.13Co0.13]O2 cathode with high rate capability and improved cyclic stability. Ionics, 2019, 25, 1967-1977.	2.4	12
74	The influences of SO42â˜' from electrolytic manganese dioxide precursor on the electrochemical properties of Li-rich Mn-based material for Li-ion batteries. Ionics, 2019, 25, 2585-2594.	2.4	12
75	Na-containing manganese-based cathode materials synthesized by sol-gel method for zinc-based rechargeable aqueous battery. Journal of Alloys and Compounds, 2021, 858, 157744.	5.5	12
76	Oxidative leaching behavior of metalliferous black shale in acidic solution using persulfate as oxidant. Transactions of Nonferrous Metals Society of China, 2016, 26, 565-574.	4.2	10
77	Selective extraction of molybdenum from copper concentrate by air oxidation in alkaline solution. Hydrometallurgy, 2017, 169, 9-15.	4.3	10
78	Yeast protein derived hierarchical mesoporous carbon for symmetrical capacitor with excellent electrochemical performances. Microporous and Mesoporous Materials, 2019, 281, 50-56.	4.4	10
79	Morphology and particle growth of Mn-based carbonate precursor in the presence of ethylene glycol for high-capacity Li-rich cathode materials. Ionics, 2019, 25, 81-87.	2.4	10
80	Initiating a high-temperature zinc ion battery through a triazolium-based ionic liquid. RSC Advances, 2022, 12, 8394-8403.	3.6	10
81	Ionic liquid assisted hydrothermal synthesis of 0.5Li2MnO3Â·0.5LiNi0.5Mn0.5O2 for lithium ion batteries. Journal of Alloys and Compounds, 2021, 864, 158177.	5.5	9
82	Comprehensive reinvestigation on the initial coulombic efficiency and capacity fading mechanism of LiNi0.5Mn1.5O4 at low rate and elevated temperature. Journal of Solid State Electrochemistry, 2013, 17, 1029-1038.	2.5	8
83	A pre-oxidation strategy to improve architecture stability and electrochemical performance of Na2MnPO4F particles-embedded carbon nanofibers. Journal of Colloid and Interface Science, 2021, 603, 430-439.	9.4	8
84	Investigation on the storage performance of LiMn2O4 at elevated temperature with the mixture of electrolyte stabilizer. Ionics, 2012, 18, 907-911.	2.4	7
85	Structural design and interfacial characteristics endow NaTi2(PO4)3 coated zinc anode with high capacity and better cycling stability. Surface and Coatings Technology, 2021, 425, 127699.	4.8	7
86	Preparation and properties of composite polymer electrolyte modified with nano-size rare earth oxide. Journal of Central South University, 2012, 19, 3378-3384.	3.0	6
87	Effect of heptamethyldisilazane on the electrochemical performance of LiMn2O4/Li. Ionics, 2013, 19, 429-435.	2.4	6
88	A potential large-scale energy conversion/storage system: an aqueous rechargeable battery with intercalated potassium compound. Ionics, 2019, 25, 2267-2274.	2.4	5
89	Carbon-nitrogen quantum dots modification of Li4Ti5O12 anode material for lithium-ion batteries. Ionics, 2020, 26, 3325-3331.	2.4	4
90	Hydrated ammonium manganese phosphates by electrochemically induced manganese-defect as cathode material for aqueous zinc ion batteries. Chinese Chemical Letters, 2023, 34, 107540.	9.0	3

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91	Lowering the operating temperature of PEO-based solid-state lithium batteries via inorganic hybridization. Ionics, 2022, 28, 779-788.	2.4	2
92	Electrochemical Performance of Hybrid Cationic Aqueous-Based Rechargeable Battery with Different Current Collectors and Electrolytes. International Journal of Photoenergy, 2019, 2019, 1-7.	2.5	1
93	Kinetics behavior of single-crystal nickel-rich cathode materials at different cut-off voltages. Ionics, 2022, 28, 1065.	2.4	1
94	Improving Li3V2(PO4)3 cathode performance by Mn2+ doping for high-rate aqueous zinc ion hybrid batteries. Ionics, 0, , .	2.4	0