Zhangxing He

List of Publications by Year
in descending order

110 papers	4,525 citations	70961 41 h-index	118652 62 g-index
110 all docs	110 docs citations	110 times ranked	2605 citing authors

#	Article	IF	Citations
1	Anode Materials for Aqueous Zinc Ion Batteries: Mechanisms, Properties, and Perspectives. ACS Nano, 2020, 14, 16321-16347.	7.3	340
2	Interfacial Engineering Strategy for High-Performance Zn Metal Anodes. Nano-Micro Letters, 2022, 14, 6.	14.4	177
3	A hafnium oxide-coated dendrite-free zinc anode for rechargeable aqueous zinc-ion batteries. Journal of Colloid and Interface Science, 2021, 599, 467-475.	5.0	165
4	Recent advances and perspectives on vanadium- and manganese-based cathode materials for aqueous zinc ion batteries. Journal of Energy Chemistry, 2021, 59, 134-159.	7.1	142
5	Emerging mineral-coupled composite phase change materials for thermal energy storage. Energy Conversion and Management, 2019, 183, 633-644.	4.4	116
6	Flexible electrospun carbon nanofiber embedded with TiO2 as excellent negative electrode for vanadium redox flow battery. Electrochimica Acta, 2018, 281, 601-610.	2.6	115
7	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.	4.0	113
8	Promoting vanadium redox flow battery performance by ultra-uniform ZrO2@C from metal-organic framework. Chemical Engineering Journal, 2021, 415, 129014.	6.6	105
9	Carbon layer-exfoliated, wettability-enhanced, SO3H-functionalized carbon paper: A superior positive electrode for vanadium redox flow battery. Carbon, 2018, 127, 297-304.	5.4	100
10	ZrO2 nanoparticle embedded carbon nanofibers by electrospinning technique as advanced negative electrode materials for vanadium redox flow battery. Electrochimica Acta, 2019, 309, 166-176.	2.6	96
11	Recent advances in metals and metal oxides as catalysts for vanadium redox flow battery: Properties, structures, and perspectives. Journal of Materials Science and Technology, 2021, 75, 96-109.	5.6	95
12	Electrospun nitrogen-doped carbon nanofiber as negative electrode for vanadium redox flow battery. Applied Surface Science, 2019, 469, 423-430.	3.1	88
13	3D structure fungi-derived carbon stabilized stearic acid as a composite phase change material for thermal energy storage. Renewable Energy, 2019, 140, 862-873.	4.3	87
14	Electrode materials for vanadium redox flow batteries: Intrinsic treatment and introducing catalyst. Chemical Engineering Journal, 2022, 427, 131680.	6.6	86
15	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.	5.2	79
16	Mn3O4 anchored on carbon nanotubes as an electrode reaction catalyst of V(IV)/V(V) couple for vanadium redox flow batteries. Electrochimica Acta, 2015, 176, 1434-1440.	2.6	76
17	N,P co-doped carbon microsphere as superior electrocatalyst for VO2+/VO2+ redox reaction. Electrochimica Acta, 2018, 259, 122-130.	2.6	72
18	N-doped carbon coated LiTi2(PO4)3 as superior anode using PANi as carbon and nitrogen bi-sources for aqueous lithium ion battery. Electrochimica Acta, 2018, 279, 279-288.	2.6	72

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19	Nanostructured N-doped carbon materials derived from expandable biomass with superior electrocatalytic performance towards V2+/V3+ redox reaction for vanadium redox flow battery. Journal of Energy Chemistry, 2021, 59, 706-714.	7.1	72
20	Effects of nitrogen doping on the electrochemical performance of graphite felts for vanadium redox flow batteries. International Journal of Energy Research, 2015, 39, 709-716.	2.2	70
21	Boosting the performance of LiTi2(PO4)3/C anode for aqueous lithium ion battery by Sn doping on Ti sites. Journal of Alloys and Compounds, 2018, 731, 32-38.	2.8	66
22	Enhanced lithium storage performance of nanostructured NaTi2(PO4)3 decorated by nitrogen-doped carbon. Electrochimica Acta, 2019, 294, 226-232.	2.6	66
23	Synthesis and performance of a graphene decorated NaTi2(PO4)3/C anode for aqueous lithium-ion batteries. Journal of Alloys and Compounds, 2019, 791, 176-183.	2.8	63
24	HF/H2O2 treated graphite felt as the positive electrode for vanadium redox flow battery. Applied Surface Science, 2017, 423, 111-118.	3.1	60
25	Recent advances in electrospun carbon fiber electrode for vanadium redox flow battery: Properties, structures, and perspectives. Carbon, 2020, 170, 527-542.	5.4	60
26	Recent advances of NASICON-Na3V2(PO4)3 as cathode for sodium-ion batteries: Synthesis, modifications, and perspectives. Journal of Alloys and Compounds, 2021, 867, 159060.	2.8	60
27	Electrocatalytic activity of MnO2 nanosheet array-decorated carbon paper as superior negative electrode for vanadium redox flow batteries. Electrochimica Acta, 2019, 322, 134754.	2.6	58
28	Raising Lithium Storage Performances of NaTi₂(PO₄)₃ by Nitrogen and Sulfur Dual-Doped Carbon Layer. Journal of the Electrochemical Society, 2020, 167, 020550.	1.3	58
29	Enhanced selective performance of mixed potential ammonia gas sensor by Au nanoparticles decorated CeVO4 sensing electrode. Sensors and Actuators B: Chemical, 2018, 272, 219-228.	4.0	56
30	Application of porous biomass carbon materials in vanadium redox flow battery. Journal of Colloid and Interface Science, 2020, 566, 434-443.	5.0	56
31	Recent advances in carbon-based electrocatalysts for vanadium redox flow battery: Mechanisms, properties, and perspectives. Composites Part B: Engineering, 2022, 242, 110094.	5.9	53
32	Advanced LiTi2(PO4)3@N-doped carbon anode for aqueous lithium ion batteries. Electrochimica Acta, 2016, 222, 1491-1500.	2.6	52
33	Enhancement of nitrogen and sulfur co-doping on the electrocatalytic properties of carbon nanotubes for VO²⁺/VO₂⁺ redox reaction. RSC Advances, 2017, 7, 13184-13190.	1.7	52
34	One-step activation of high-graphitization N-doped porous biomass carbon as advanced catalyst for vanadium redox flow battery. Journal of Colloid and Interface Science, 2020, 572, 216-226.	5.0	52
35	Novel 2D porous carbon nanosheet derived from biomass: Ultrahigh porosity and excellent performances toward V2+/V3+ redox reaction for vanadium redox flow battery. International Journal of Hydrogen Energy, 2020, 45, 3959-3970.	3.8	50
36	Effects of organic additives containing NH2 and SO3H on electrochemical properties of vanadium redox flow battery. Electrochimica Acta, 2013, 106, 556-562.	2.6	48

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37	Synthesis and electrochemical performance of Li1+xTi2âˆ'xFex(PO4)3/C anode for aqueous lithium ion battery. Advanced Powder Technology, 2020, 31, 1359-1364.	2.0	47
38	Ammonia sensing characteristics of La10Si5MgO26-based sensors using In2O3 sensing electrode with different morphologies and CuO reference electrode. Sensors and Actuators B: Chemical, 2016, 228, 716-724.	4.0	46
39	Improving the electrocatalytic performance of carbon nanotubes for VO2+/VO2+ redox reaction by KOH activation. Applied Surface Science, 2017, 401, 106-113.	3.1	46
40	Effects of organic additives with oxygen- and nitrogen-containing functional groups on the negative electrolyte of vanadium redox flow battery. Electrochimica Acta, 2014, 130, 314-321.	2.6	45
41	Carbon nanofibers grown on the surface of graphite felt by chemical vapour deposition for vanadium redox flow batteries. RSC Advances, 2013, 3, 19774.	1.7	44
42	KHCO3 activated carbon microsphere as excellent electrocatalyst for VO2+/VO2+ redox couple for vanadium redox flow battery. Journal of Energy Chemistry, 2019, 29, 103-110.	7.1	43
43	Mixed potential NH3 sensor based on Mg-doped lanthanum silicate oxyapatite. Sensors and Actuators B: Chemical, 2016, 224, 356-363.	4.0	41
44	Mixed-potential type NH3 sensor based on TiO2 sensing electrode with a phase transformation effect. Sensors and Actuators B: Chemical, 2017, 240, 962-970.	4.0	41
45	Sb-doped SnO2 nanoparticle-modified carbon paper as a superior electrode for a vanadium redox flow battery. Applied Surface Science, 2020, 526, 146685.	3.1	33
46	Advanced LiTi2(PO4)3/C anode by incorporation of carbon nanotubes for aqueous lithium-ion batteries. Ionics, 2017, 23, 575-583.	1.2	32
47	Effect of Sn doping on the electrochemical performance of NaTi2(PO4)3/C composite. Ceramics International, 2018, 44, 15646-15652.	2.3	30
48	Preparation of Carbon Nanosheet by Molten Salt Route and Its Application in Catalyzing VO²⁺/VO₂⁺ Redox Reaction. Journal of the Electrochemical Society, 2019, 166, A953-A959.	1.3	30
49	Modified carbon cloth as positive electrode with high electrochemical performance for vanadium redox flow batteries. Journal of Energy Chemistry, 2016, 25, 720-725.	7.1	29
50	Graphite felt electrode modified by square wave potential pulse for vanadium redox flow battery. International Journal of Energy Research, 2017, 41, 439-447.	2.2	28
51	Enhancing NH3 sensing performance of mixed potential type sensors by chemical exsolution of Ag nanoparticle on AgNbO3 sensing electrode. Sensors and Actuators B: Chemical, 2019, 298, 126854.	4.0	28
52	Effect of In3+ ions on the electrochemical performance of the positive electrolyte for vanadium redox flow batteries. Ionics, 2013, 19, 1915-1920.	1.2	27
53	Carbon paper modified by hydrothermal ammoniated treatment for vanadium redox battery. Ionics, 2013, 19, 1021-1026.	1.2	27
54	Enhanced sensing performance of mixed potential ammonia gas sensor based on Bi0.95Ni0.05VO3.975 by silver. Sensors and Actuators B: Chemical, 2018, 259, 668-676.	4.0	26

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55	Impact of Fe doping on performance of NaTi2(PO4)3/C anode for aqueous lithium ion battery. Solid State Ionics, 2018, 327, 123-128.	1.3	26
56	In situ exsolution of PdO nanoparticles from non-stoichiometric LaFePd0.05O3+Î´ electrode for impedancemetric NO2 sensor. Sensors and Actuators B: Chemical, 2019, 298, 126827.	4.0	26
57	Synthesis and electrochemical properties of Na-doped LiTi2(PO4)3@carbon composite as anode for aqueous lithium ion batteries. Ceramics International, 2017, 43, 11481-11487.	2.3	25
58	LiTi2(PO4)3@carbon/graphene hybrid as superior anode materials for aqueous lithium ion batteries. Ceramics International, 2017, 43, 99-105.	2.3	24
59	Mixed-potential type NH3 sensor based on La10Si5.5Al0.5O27 electrolyte and CuV2O6 sensing electrode. Sensors and Actuators B: Chemical, 2019, 294, 206-215.	4.0	22
60	High performance solid electrolyte-based NO2 sensor based on Co3V2O8 derived from metal-organic framework. Sensors and Actuators B: Chemical, 2020, 302, 127173.	4.0	22
61	Superior lithium storage performance of hierarchical N-doped carbon encapsulated NaTi2(PO4)3 microflower. Ceramics International, 2020, 46, 1954-1961.	2.3	22
62	Stearic Acid/Copper Foam as Composite Phase Change Materials for Thermal Energy Storage. Journal of Thermal Science, 2020, 29, 492-502.	0.9	22
63	Mixed potential NH3 sensor based on La9.95K0.05Si5Al1O26.45 electrolyte and Ag doped BiVO4 sensing electrode. Sensors and Actuators B: Chemical, 2020, 316, 128206.	4.0	21
64	Impedancemetric NO2 sensor based on Pd doped perovskite oxide sensing electrode conjunction with phase angle response. Electrochimica Acta, 2018, 265, 411-418.	2.6	20
65	Endowing electrospun carbon fiber with excellent electrocatalytic properties towards VO2+/VO2+ redox reaction for vanadium redox flow battery by in situ iridium decoration. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 586, 124137.	2.3	19
66	Effects of pyridine carboxylic acid on the positive electrolyte for vanadium redox flow battery. Ionics, 2015, 21, 167-174.	1.2	18
67	Sulfonated Carbon Nanotubes as Superior Catalysts towards V³⁺/V²⁺Redox Reaction for Vanadium Redox Flow Battery. Journal of the Electrochemical Society, 2018, 165, A932-A938.	1.3	18
68	Phosphorus Doped Multiâ€Walled Carbon Nanotubes: An Excellent Electrocatalyst for the VO²⁺/VO₂⁺ Redox Reaction. ChemElectroChem, 2018, 5, 2464-2474.	1.7	18
69	Biomass-Derived Porous Graphitic Carbon with Excellent Electrocatalytic Performances for Vanadium Redox Reactions. Journal of the Electrochemical Society, 2019, 166, A3918-A3926.	1.3	18
70	Zirconium boride as a novel negative catalyst for vanadium redox flow battery. Ceramics International, 2021, 47, 20276-20285.	2.3	18
71	Electrocatalytic activity of cobalt phosphide-modified graphite felt toward VO2+/VO2+ redox reaction. Applied Surface Science, 2018, 436, 1030-1037.	3.1	17
72	A novel mixed-potential type NH3 sensor based on Ag nanoparticles decorated AgNbO3 sensing electrode synthesized by demixing method. Sensors and Actuators B: Chemical, 2019, 301, 127146.	4.0	17

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73	Mixed-potential type NH3 sensor based on CoWO4-PdO sensing electrode prepared by self-demixing. Electrochimica Acta, 2019, 321, 134668.	2.6	17
74	Electrocatalytic performance of TiO ₂ with different phase state towards V ²⁺ /V ³⁺ reaction for vanadium redox flow battery. International Journal of Energy Research, 2019, 43, 4473-4482.	2.2	17
75	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.	2.3	16
76	N-doped biomass carbon materials as superior catalyst to improve electrochemical performance of vanadium redox flow battery. Ionics, 2021, 27, 4771-4781.	1.2	15
77	Study of the electrochemical performance of VO2+/VO2 + redox couple in sulfamic acid for vanadium redox flow battery. Ionics, 2014, 20, 949-955.	1.2	14
78	Fungi-Derived, Functionalized, and Wettability-Improved Porous Carbon Materials: An Excellent Electrocatalyst toward VO²⁺/VO₂⁺Redox Reaction for Vanadium Redox Flow Battery. Journal of the Electrochemical Society, 2018, 165, A1813-A1821.	1.3	14
79	Carbon paper decorated with tin dioxide particle via in situ electrodeposition as bifunctional electrode for vanadium redox flow battery. International Journal of Energy Research, 2020, 44, 2100-2109.	2.2	14
80	Impedancemetric-type NO2 sensor based on non-stoichiometric perovskite type sensing electrode using multiple response signals. Sensors and Actuators B: Chemical, 2020, 321, 128551.	4.0	14
81	A new redox flow battery of high energy density with V/Mn hybrid redox couples. Journal of Renewable and Sustainable Energy, 2014, 6, .	0.8	13
82	High-temperature NO 2 sensor based on aluminum/indium co-doped lanthanum silicate oxyapatite electrolyte and cobalt-free perovskite oxide sensing electrode. Sensors and Actuators B: Chemical, 2017, 250, 629-640.	4.0	13
83	Boosting the electrocatalytic performance of carbon nanotubes toward V(V)/V(IV) reaction by sulfonation treatment. International Journal of Energy Research, 2018, 42, 1625-1634.	2.2	13
84	Promoting the performances of NaTi2(PO4)3 electrode for sodium ion battery by reasonable crystal design and surface modification. Ceramics International, 2020, 46, 19452-19459.	2.3	13
85	Recent advances in LiV3O8 as anode material for aqueous lithium-ion batteries: Syntheses, modifications, and perspectives. Journal of Alloys and Compounds, 2022, 897, 163065.	2.8	13
86	Improved lithium storage performance of NaTi2(PO4)3/C composite connected by carbon nanotubes. Solid State Ionics, 2018, 325, 189-195.	1.3	12
87	Properties of Hf doped BaZr0.8Y0.2O3-Î´ protonic conductor. Ceramics International, 2021, 47, 9273-9286.	2.3	11
88	Boosting the performance of positive electrolyte for VRFB by employing zwitterion molecule containing sulfonic and pyridine groups as the additive. Ionics, 2020, 26, 3147-3159.	1.2	10
89	Crystal doping of K ion on Na site raises the electrochemical performance of NaTi2(PO4)3/C anode for sodium-ion battery. Ionics, 2020, 26, 3387-3394.	1.2	9
90	A mixed-potential type NH3 sensors based on spinel Zn2SnO4 sensing electrode. Sensors and Actuators B: Chemical, 2022, 367, 132154.	4.0	9

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91	Improvement of Al3+ ion conductivity by F doping of (Al0.2Zr0.8)4/3.8NbP3O12 solid electrolyte for mixed potential NH3 sensors. Ceramics International, 2018, 44, 8983-8991.	2.3	8
92	Synergistic Catalysis of SnO2-CNTs Composite for VO2+/VO2+ and V2+/V3+ Redox Reactions. Frontiers in Chemistry, 2021, 9, 671575.	1.8	8
93	Improved performance of vanadium redox battery using methylsulfonic acid solution as supporting electrolyte. Journal of Renewable and Sustainable Energy, 2013, 5, .	0.8	7
94	K doping on Li site enables LiTi2(PO4)3/C excellent lithium storage performance. Solid State Ionics, 2019, 341, 115036.	1.3	7
95	Ultra-Tiny Sb-Doped SnO₂ Nanoparticles as a Superior Catalyst for Vanadium Redox Reactions. Journal of the Electrochemical Society, 2020, 167, 100522.	1.3	7
96	Synergistic Catalysis of SnO2/Reduced Graphene Oxide for VO2+/VO2+ and V2+/V3+ Redox Reactions. Molecules, 2021, 26, 5085.	1.7	7
97	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.	2.2	7
98	A limiting current hydrogen sensor based on BaHf0.8Fe0.2O3-Î´ dense diffusion barrier and BaHf0.7Sn0.1In0.2O3-Î´ protonic conductor. Ceramics International, 2022, , .	2.3	7
99	A Comparison of Mineralogical and Thermal Storage Characteristics for Two Types of Stone Coal. Minerals (Basel, Switzerland), 2019, 9, 594.	0.8	6
100	Chlorine doping enables NaTi2(PO4)3/C excellent lithium ion storage performance in aqueous lithium ion batteries. Journal of Electroanalytical Chemistry, 2021, 880, 114941.	1.9	6
101	Thiourea-Grafted Graphite Felts as Positive Electrode for Vanadium Redox Flow Battery. Frontiers in Chemistry, 2020, 8, 626490.	1.8	5
102	Electrospinning technology to prepare in-situ Cr2O3 modified carbon nanofibers as dual-function electrode material for vanadium redox battery. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 628, 127287.	2.3	5
103	Endowing LiTi2(PO4)3/C with excellent electrochemical performances through rational crystal doping. Ceramics International, 2019, 45, 23406-23410.	2.3	4
104	Low-cost marine biomass carbon as a high-performance electrocatalyst for vanadium redox flow battery. International Journal of Green Energy, 2022, 19, 1357-1366.	2.1	4
105	Enhanced sodium storage performance of NASICON-structured NaTi2(PO4)3/C decorated with graphene. Solid State Ionics, 2019, 336, 139-145.	1.3	3
106	Anion doping enabling SnO₂ superior electrocatalytic performances for vanadium redox reactions. International Journal of Green Energy, 0, , 1-11.	2.1	3
107	Meliorating the sodium storage properties of NaTi2(PO4)3/C by rational structural design. Ionics, 2020, 26, 2891-2898.	1.2	1
108	Tuning the crystal structure and oxygen defect by doping lithium vanadate. Ceramics International, 2022, 48, 24706-24715.	2.3	1

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109	Impedancemetric NO₂Sensor Based on CoCrFeO₄Sensing Electrode and La_{9.4}Ba_{0.6}Si_{5.9}W_{0.1}O_{26.8}Electrolyte with Phase Angle as Response Signals. Journal of the Electrochemical Society, 2020, 167, 047516.	1.3	0
110	Enhanced Catalysis of P-doped SnO2 for the V2+/V3+ Redox Reaction in Vanadium Redox Flow Battery. Frontiers in Chemistry, 2021, 9, 688634.	1.8	0