

# Kangning Zhao

## List of Publications by Citations

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104  
papers

7,614  
citations

46  
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110  
ext. papers

9,391  
ext. citations

12.8  
avg, IF

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L-index

#	Paper	IF	Citations
104	Water-Lubricated Intercalation in $\text{V}_2\text{O}_5 \cdot \text{H}_2\text{O}$ for High-Capacity and High-Rate Aqueous Rechargeable Zinc Batteries. <i>Advanced Materials</i> , <b>2018</b> , 30, 1703725	24	725
103	Low-crystalline iron oxide hydroxide nanoparticle anode for high-performance supercapacitors. <i>Nature Communications</i> , <b>2017</b> , 8, 14264	17.4	452
102	General synthesis of complex nanotubes by gradient electrospinning and controlled pyrolysis. <i>Nature Communications</i> , <b>2015</b> , 6, 7402	17.4	320
101	Manganese oxide/carbon yolk-shell nanorod anodes for high capacity lithium batteries. <i>Nano Letters</i> , <b>2015</b> , 15, 738-44	11.5	318
100	$\text{SnO}_2$ Quantum Dots@Graphene Oxide as a High-Rate and Long-Life Anode Material for Lithium-Ion Batteries. <i>Small</i> , <b>2016</b> , 12, 588-94	11	307
99	$\text{H}_2\text{V}_3\text{O}_8$ Nanowire/Graphene Electrodes for Aqueous Rechargeable Zinc Ion Batteries with High Rate Capability and Large Capacity. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1800144	21.8	302
98	Ultrathin Surface Coating Enables Stabilized Zinc Metal Anode. <i>Advanced Materials Interfaces</i> , <b>2018</b> , 5, 1800848	4.6	276
97	Diethyl ether as self-healing electrolyte additive enabled long-life rechargeable aqueous zinc ion batteries. <i>Nano Energy</i> , <b>2019</b> , 62, 275-281	17.1	234
96	$\text{MoB/g-C}_3\text{N}_4$ Interface Materials as a Schottky Catalyst to Boost Hydrogen Evolution. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 496-500	16.4	228
95	Amorphous vanadium oxide matrixes supporting hierarchical porous $\text{Fe}_3\text{O}_4$ /graphene nanowires as a high-rate lithium storage anode. <i>Nano Letters</i> , <b>2014</b> , 14, 6250-6	11.5	224
94	$\text{VO}_2$ nanowires assembled into hollow microspheres for high-rate and long-life lithium batteries. <i>Nano Letters</i> , <b>2014</b> , 14, 2873-8	11.5	210
93	Atomically dispersed metal catalysts for the oxygen reduction reaction: synthesis, characterization, reaction mechanisms and electrochemical energy applications. <i>Energy and Environmental Science</i> , <b>2019</b> , 12, 2890-2923	35.4	208
92	Self-sacrificed synthesis of three-dimensional $\text{Na}_3\text{V}_2(\text{PO}_4)_3$ nanofiber network for high-rate sodium-ion full batteries. <i>Nano Energy</i> , <b>2016</b> , 25, 145-153	17.1	186
91	Low-Crystalline Bimetallic Metal-Organic Framework Electrocatalysts with Rich Active Sites for Oxygen Evolution. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 285-292	20.1	150
90	Hierarchical zigzag $\text{Na}_{1.25}\text{V}_3\text{O}_8$ nanowires with topotactically encoded superior performance for sodium-ion battery cathodes. <i>Energy and Environmental Science</i> , <b>2015</b> , 8, 1267-1275	35.4	141
89	Novel $\text{K}_3\text{V}_2(\text{PO}_4)_3/\text{C}$ Bundled Nanowires as Superior Sodium-Ion Battery Electrode with Ultrahigh Cycling Stability. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1500716	21.8	140
88	Defect engineering activating (Boosting) zinc storage capacity of $\text{MoS}_2$ . <i>Energy Storage Materials</i> , <b>2019</b> , 16, 527-534	19.4	130

87	Interwoven three-dimensional architecture of cobalt oxide nanobrush-graphene@Ni(x)Co(2x)(OH)(6x) for high-performance supercapacitors. <i>Nano Letters</i> , <b>2015</b> , 15, 2037-44	11.5	129
86	Copper-Nickel Nitride Nanosheets as Efficient Bifunctional Catalysts for Hydrazine-Assisted Electrolytic Hydrogen Production. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1900390	21.8	128
85	Heterogeneous branched core-shell SnO <sub>2</sub> @ANI nanorod arrays with mechanical integrity and three dimensional electron transport for lithium batteries. <i>Nano Energy</i> , <b>2014</b> , 8, 196-204	17.1	127
84	Field Effect Enhanced Hydrogen Evolution Reaction of MoS Nanosheets. <i>Advanced Materials</i> , <b>2017</b> , 29, 1604464	24	111
83	Air-Stable Porous FeN Encapsulated in Carbon Microboxes with High Volumetric Lithium Storage Capacity and a Long Cycle Life. <i>Nano Letters</i> , <b>2017</b> , 17, 5740-5746	11.5	110
82	Graphene Oxide Wrapped Amorphous Copper Vanadium Oxide with Enhanced Capacitive Behavior for High-Rate and Long-Life Lithium-Ion Battery Anodes. <i>Advanced Science</i> , <b>2015</b> , 2, 1500154	13.6	100
81	Built-in oriented electric field facilitating durable Zn MnO <sub>2</sub> battery. <i>Nano Energy</i> , <b>2019</b> , 62, 79-84	17.1	96
80	FeP Quantum Dots Confined in Carbon-Nanotube-Grafted P-Doped Carbon Octahedra for High-Rate Sodium Storage and Full-Cell Applications. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1909283	15.6	77
79	Phosphorus Enhanced Intermolecular Interactions of SnO and Graphene as an Ultrastable Lithium Battery Anode. <i>Small</i> , <b>2017</b> , 13, 1603973	11	76
78	Cathodic polarization suppressed sodium-ion full cell with a 3.3 V high-voltage. <i>Nano Energy</i> , <b>2016</b> , 28, 216-223	17.1	76
77	Acetylene Black Induced Heterogeneous Growth of Macroporous CoV <sub>2</sub> O <sub>6</sub> Nanosheet for High-Rate Pseudocapacitive Lithium-Ion Battery Anode. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 7139-46	9.5	74
76	Thermal Induced Strain Relaxation of 1D Iron Oxide for Solid Electrolyte Interphase Control and Lithium Storage Improvement. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1601582	21.8	70
75	Integrated SnO <sub>2</sub> nanorod array with polypyrrole coverage for high-rate and long-life lithium batteries. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 7619-23	3.6	70
74	SnS <sub>2</sub> @Graphene nanosheet arrays grown on carbon cloth as freestanding binder-free flexible anodes for advanced sodium batteries. <i>Journal of Alloys and Compounds</i> , <b>2016</b> , 654, 357-362	5.7	69
73	Atomically targeting NiFe LDH to create multivacancies for OER catalysis with a small organic anchor. <i>Nano Energy</i> , <b>2021</b> , 81, 105606	17.1	69
72	Hierarchical Graphene-Encapsulated Hollow SnO <sub>2</sub> @SnS <sub>2</sub> Nanostructures with Enhanced Lithium Storage Capability. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 22533-41	9.5	68
71	Nonhierarchical Heterostructured Fe O /Mn O Porous Hollow Spheres for Enhanced Lithium Storage. <i>Small</i> , <b>2018</b> , 14, e1800659	11	67
70	Electrochemical activated MoO <sub>2</sub> /Mo <sub>2</sub> N heterostructured nanobelts as superior zinc rechargeable battery cathode. <i>Energy Storage Materials</i> , <b>2018</b> , 15, 374-379	19.4	60

69	Single-Nanowire Electrochemical Probe Detection for Internally Optimized Mechanism of Porous Graphene in Electrochemical Devices. <i>Nano Letters</i> , <b>2016</b> , 16, 1523-9	11.5	59
68	Facile synthesis of a Co <sub>3</sub> V <sub>2</sub> O <sub>8</sub> interconnected hollow microsphere anode with superior high-rate capability for Li-ion batteries. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 5075-5080	13	57
67	Carbon-supported and nanosheet-assembled vanadium oxide microspheres for stable lithium-ion battery anodes. <i>Nano Research</i> , <b>2016</b> , 9, 128-138	10	57
66	High-Voltage Cycling Induced Thermal Vulnerability in LiCoO Cathode: Cation Loss and Oxygen Release Driven by Oxygen Vacancy Migration. <i>ACS Nano</i> , <b>2020</b> , 14, 6181-6190	16.7	55
65	Inhibiting effect of Na <sup>+</sup> pre-intercalation in MoO <sub>3</sub> nanobelts with enhanced electrochemical performance. <i>Nano Energy</i> , <b>2015</b> , 15, 145-152	17.1	53
64	An electrospun hierarchical LiV <sub>3</sub> O <sub>8</sub> nanowire-in-network for high-rate and long-life lithium batteries. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 19850-19856	13	53
63	Sodium Ion Capacitor Using Pseudocapacitive Layered Ferric Vanadate Nanosheets Cathode. <i>IScience</i> , <b>2018</b> , 6, 212-221	6.1	53
62	Copper silicate nanotubes anchored on reduced graphene oxide for long-life lithium-ion battery. <i>Energy Storage Materials</i> , <b>2017</b> , 7, 152-156	19.4	51
61	Novel Polygonal Vanadium Oxide Nanoscrolls as Stable Cathode for Lithium Storage. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 1773-1779	15.6	49
60	MoB/g-C <sub>3</sub> N <sub>4</sub> Interface Materials as a Schottky Catalyst to Boost Hydrogen Evolution. <i>Angewandte Chemie</i> , <b>2018</b> , 130, 505-509	3.6	48
59	Boosting Polysulfide Redox Kinetics by Graphene-Supported Ni Nanoparticles with Carbon Coating. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2000907	21.8	46
58	Mesoporous VO <sub>2</sub> nanowires with excellent cycling stability and enhanced rate capability for lithium batteries. <i>RSC Advances</i> , <b>2014</b> , 4, 33332-33337	3.7	45
57	In situ structural evolution of the multi-site alloy electrocatalyst to manipulate the intermediate for enhanced water oxidation reaction. <i>Energy and Environmental Science</i> , <b>2020</b> , 13, 2200-2208	35.4	41
56	Zinc Pyrovanadate Nanoplates Embedded in Graphene Networks with Enhanced Electrochemical Performance. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2016</b> , 55, 2992-2999	3.9	38
55	Nanoribbons and nanoscrolls intertwined three-dimensional vanadium oxide hydrogels for high-rate lithium storage at high mass loading level. <i>Nano Energy</i> , <b>2017</b> , 40, 73-81	17.1	37
54	Reversible (De)Intercalation of Hydrated Zn <sup>2+</sup> in Mg <sup>2+</sup> -Stabilized V <sub>2</sub> O <sub>5</sub> Nanobelts with High Areal Capacity. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2002293	21.8	36
53	Quicker and More Zn Storage Predominantly from the Interface. <i>Advanced Materials</i> , <b>2021</b> , 33, e2100359	24	35
52	Pyrolyzed carbon with embedded NiO/Ni nanospheres for applications in microelectrodes. <i>RSC Advances</i> , <b>2016</b> , 6, 43436-43441	3.7	34

51	Surface reconstruction of NiCoP pre-catalysts for bifunctional water splitting in alkaline electrolyte. <i>Electrochimica Acta</i> , <b>2020</b> , 345, 136114	6.7	31
50	Electrochemical in situ X-ray probing in lithium-ion and sodium-ion batteries. <i>Journal of Materials Science</i> , <b>2017</b> , 52, 3697-3718	4.3	30
49	Enhanced performance of atomically dispersed dual-site Fe-Mn electrocatalysts through cascade reaction mechanism. <i>Applied Catalysis B: Environmental</i> , <b>2021</b> , 288, 120021	21.8	30
48	Surface Gradient Ti-Doped MnO Nanowires for High-Rate and Long-Life Lithium Battery. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 44376-44384	9.5	29
47	Confinement of Ionic Liquids at Single-Ni-Sites Boost Electroreduction of CO <sub>2</sub> in Aqueous Electrolytes. <i>ACS Catalysis</i> , <b>2020</b> , 10, 13171-13178	13.1	27
46	Hollow spherical LiNi <sub>0.5</sub> Mn <sub>1.5</sub> O <sub>4</sub> built from polyhedra with high-rate performance via carbon nanotube modification. <i>Science China Materials</i> , <b>2016</b> , 59, 95-103	7.1	27
45	Direct growth of an economic green energy storage material: a monocrystalline jarosite-KFe <sub>3</sub> (SO <sub>4</sub> ) <sub>2</sub> (OH) <sub>6</sub> -nanoplates@rGO hybrid as a superior lithium-ion battery cathode. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 3735-3742	13	25
44	Interconnected Vertically Stacked 2D-MoS for Ultrastable Cycling of Rechargeable Li-Ion Battery. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 20762-20769	9.5	24
43	Sisyphus effects in hydrogen electrochemistry on metal silicides enabled by silicene subunit edge. <i>Science Bulletin</i> , <b>2019</b> , 64, 617-624	10.6	24
42	In operando observation of temperature-dependent phase evolution in lithium-incorporation olivine cathode. <i>Nano Energy</i> , <b>2016</b> , 22, 406-413	17.1	24
41	Sn stabilized pyrovanadate structure rearrangement for zinc ion battery. <i>Nano Energy</i> , <b>2021</b> , 81, 105584	17.1	21
40	Carbon-coated ultrathin metallic V <sub>5</sub> Se <sub>8</sub> nanosheet for high-energy-density and robust potassium storage. <i>Energy Storage Materials</i> , <b>2021</b> , 35, 1-11	19.4	19
39	Oxalate-assisted formation of uniform carbon-confined SnO nanotubes with enhanced lithium storage. <i>Chemical Communications</i> , <b>2017</b> , 53, 9542-9545	5.8	18
38	Carbon-Decorated NaV(PO) <sub>4</sub> as Ultralong Lifespan Cathodes for High-Energy-Density Symmetric Sodium-Ion Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 25036-25043	9.5	18
37	A self-powered implantable and bioresorbable electrostimulation device for biofeedback bone fracture healing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	18
36	Layered ferric vanadate nanosheets as a high-rate NH <sub>4</sub> <sup>+</sup> storage electrode. <i>Electrochimica Acta</i> , <b>2020</b> , 360, 137008	6.7	17
35	Interfacial Electronic Modulation of Multishelled CoP Hollow Spheres via Surface Reconstruction for High-Efficient Hydrogen Evolution Reaction. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 309-318	6.1	16
34	Superior Stability and Dynamic Performance of Single Crystal LiNi <sub>1/3</sub> Co <sub>1/3</sub> Mn <sub>1/3</sub> O <sub>2</sub> Nanorods from EMnO <sub>2</sub> Template for Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , <b>2019</b> , 166, A59-A67	3.9	16

33	The Capturing of Ionized Oxygen in Sodium Vanadium Oxide Nanorods Cathodes under Operando Conditions. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 6555-6562	15.6	15
32	Compact Sn/SnO <sub>2</sub> microspheres with gradient composition for high volumetric lithium storage. <i>Energy Storage Materials</i> , <b>2020</b> , 25, 376-381	19.4	14
31	Gradient SEI layer induced by liquid alloy electrolyte additive for high rate lithium metal battery. <i>Nano Energy</i> , <b>2021</b> , 88, 106237	17.1	14
30	3D branched rutile TiO <sub>2</sub> @ rutile SnO <sub>2</sub> nanorods array heteroarchitectures/carbon cloth with an adjustable band gap to enhance lithium storage reaction kinetics for flexible lithium-ion batteries. <i>Electrochimica Acta</i> , <b>2020</b> , 354, 136727	6.7	13
29	Reconstruction of pH-universal atomic FeNC catalysts towards oxygen reduction reaction. <i>Journal of Colloid and Interface Science</i> , <b>2021</b> , 582, 1033-1040	9.3	13
28	Interconnected LiCuVO networks with in situ Cu generation as high-performance lithium-ion battery anode. <i>Physical Chemistry Chemical Physics</i> , <b>2017</b> , 19, 13341-13347	3.6	12
27	A Crystalline/Amorphous Cobalt(II,III) Oxide Hybrid Electrocatalyst for Lithium-Air Batteries. <i>Energy Technology</i> , <b>2017</b> , 5, 568-579	3.5	11
26	Hierarchical Bimetallic Selenide Nanosheet-Constructed Nanotubes for Efficient Electrocatalytic Water Oxidation. <i>ChemElectroChem</i> , <b>2019</b> , 6, 331-335	4.3	11
25	Sodium Superionic Conductors (NASICONs) as Cathode Materials for Sodium-Ion Batteries. <i>Electrochemical Energy Reviews</i> , 1	29.3	11
24	Flexible bioelectronics for physiological signals sensing and disease treatment. <i>Journal of Materiomics</i> , <b>2020</b> , 6, 397-413	6.7	10
23	Electrochemically Exfoliating MoS <sub>2</sub> into Atomically Thin Planar-Stacking Through a Selective Lateral Reaction Pathway. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2007840	15.6	10
22	Interface cation migration kinetics induced oxygen release heterogeneity in layered lithium cathodes. <i>Energy Storage Materials</i> , <b>2021</b> , 36, 115-122	19.4	9
21	A programmable and skin temperature-activated electromechanical synergistic dressing for effective wound healing.. <i>Science Advances</i> , <b>2022</b> , 8, eabl8379	14.3	8
20	Biomimetic synthesis of Na <sub>3</sub> V <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> nanoparticles wrapped with 3D porous carbon as high-performance cathode for sodium-ion batteries. <i>Ionics</i> , <b>2021</b> , 27, 1165-1175	2.7	8
19	Mg <sup>2+</sup> Doped LiNi <sub>1/3</sub> Co <sub>1/3</sub> Mn <sub>1/3</sub> O <sub>2</sub> Hollow Flake-Like Structures with Enhanced Performances Cathodes for Lithium-Ion Batteries. <i>ChemistrySelect</i> , <b>2020</b> , 5, 1275-1281	1.8	6
18	In situ visualizing the interplay between the separator and potassium dendrite growth by synchrotron X-ray tomography. <i>Nano Energy</i> , <b>2021</b> , 83, 105841	17.1	6
17	Enhanced lithiation dynamics in nanostructured Nb <sub>18</sub> W <sub>16</sub> O <sub>93</sub> anodes. <i>Journal of Power Sources</i> , <b>2021</b> , 482, 228898	8.9	6
16	Tremella-like Hydrated Vanadium Oxide Cathode with an Architectural Design Strategy toward Ultralong Lifespan Aqueous Zinc-Ion Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 41688-41697	8.5	6

15	Architecting a Hydrated CaVO Cathode with a Facile Desolvation Interface for Superior-Performance Aqueous Zinc Ion Batteries.. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 60035-60045	9.5	6
14	Nickel Niobate Anodes for High Rate Lithium-Ion Batteries. <i>Advanced Energy Materials</i> , 2102972	21.8	5
13	Illuminating phase transformation dynamics of vanadium oxide cathode by multimodal techniques under operando conditions. <i>Nano Research</i> , <b>2019</b> , 12, 905-910	10	4
12	Crystalline state transformation strategy for improving the catalytic performance of oxygen evolution reaction at high current density. <i>Materials Today Energy</i> , <b>2020</b> , 18, 100564	7	4
11	Potassium-Ion Activating Formation of Fe <sup>III</sup> Moiety as Efficient Oxygen Electrocatalyst for Zn-Air Batteries. <i>ChemElectroChem</i> , <b>2021</b> , 8, 1298-1306	4.3	4
10	Direct Visualization of Atomic-Scale Heterogeneous Structure Dynamics in MnO Nanowires. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 33644-33651	9.5	4
9	An integrated flexible film as cathode for High-Performance Lithium-Sulfur battery. <i>Journal of Colloid and Interface Science</i> , <b>2022</b> , 606, 1627-1635	9.3	3
8	Dual-function engineering to construct ultra-stable anodes for potassium-ion hybrid capacitors: N, O-doped porous carbon spheres. <i>Nano Energy</i> , <b>2022</b> , 93, 106903	17.1	2
7	Bottom-up synthesis of graphene films hosting atom-thick molecular-sieving apertures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	2
6	Sulfur-Deficient Porous SnS Microflowers as Superior Anode for Alkaline Ion Batteries. <i>Materials</i> , <b>2020</b> , 13,	3.5	1
5	A facile surface alloy-engineering route to enable robust lithium metal anodes.. <i>Physical Chemistry Chemical Physics</i> , <b>2022</b> ,	3.6	1
4	2D titanoniobate-titaniumcarbide nanohybrid anodes for ultrafast lithium-ion batteries. <i>Journal of Power Sources</i> , <b>2021</b> , 512, 230523	8.9	1
3	Multifunctional flexible contact lens for eye health monitoring using inorganic magnetic oxide nanosheets.. <i>Journal of Nanobiotechnology</i> , <b>2022</b> , 20, 202	9.4	1
2	Energy Storage: Novel Polygonal Vanadium Oxide Nanoscrolls as Stable Cathode for Lithium Storage (Adv. Funct. Mater. 12/2015). <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 1766-1766	15.6	
1	Cycling-Stable Cathodes: The Capturing of Ionized Oxygen in Sodium Vanadium Oxide Nanorods Cathodes under Operando Conditions (Adv. Funct. Mater. 36/2016). <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 6498-6498	15.6	