

Kangning Zhao

List of Publications by Year in descending order

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109
papers

11,126
citations

31902

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110
docs citations

110
times ranked

11240
citing authors

#	ARTICLE	IF	CITATIONS
1	Water-Lubricated Intercalation in V_2O_5 - nH_2O for High-Capacity and High-Rate Aqueous Rechargeable Zinc Batteries. <i>Advanced Materials</i> , 2018, 30, 1703725.	11.1	1,084
2	Low-crystalline iron oxide hydroxide nanoparticle anode for high-performance supercapacitors. <i>Nature Communications</i> , 2017, 8, 14264.	5.8	588
3	Ultrathin Surface Coating Enables Stabilized Zinc Metal Anode. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800848.	1.9	476
4	Diethyl ether as self-healing electrolyte additive enabled long-life rechargeable aqueous zinc ion batteries. <i>Nano Energy</i> , 2019, 62, 275-281.	8.2	455
5	$H_2V_3O_8$ Nanowire/Graphene Electrodes for Aqueous Rechargeable Zinc Ion Batteries with High Rate Capability and Large Capacity. <i>Advanced Energy Materials</i> , 2018, 8, 1800144.	10.2	427
6	General synthesis of complex nanotubes by gradient electrospinning and controlled pyrolysis. <i>Nature Communications</i> , 2015, 6, 7402.	5.8	370
7	Manganese Oxide/Carbon Yolk-Shell Nanorod Anodes for High Capacity Lithium Batteries. <i>Nano Letters</i> , 2015, 15, 738-744.	4.5	345
8	SnO_2 Quantum Dots@Graphene Oxide as a High-Rate and Long-Life Anode Material for Lithium-Ion Batteries. <i>Small</i> , 2016, 12, 588-594.	5.2	338
9	Atomically dispersed metal catalysts for the oxygen reduction reaction: synthesis, characterization, reaction mechanisms and electrochemical energy applications. <i>Energy and Environmental Science</i> , 2019, 12, 2890-2923.	15.6	317
10	$MoB/g-C_3N_4$ Interface Materials as a Schottky Catalyst to Boost Hydrogen Evolution. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 496-500.	7.2	308
11	Amorphous Vanadium Oxide Matrixes Supporting Hierarchical Porous Fe_3O_4 /Graphene Nanowires as a High-Rate Lithium Storage Anode. <i>Nano Letters</i> , 2014, 14, 6250-6256.	4.5	257
12	Low-Crystalline Bimetallic Metal-Organic Framework Electrocatalysts with Rich Active Sites for Oxygen Evolution. <i>ACS Energy Letters</i> , 2019, 4, 285-292.	8.8	255
13	VO_2 Nanowires Assembled into Hollow Microspheres for High-Rate and Long-Life Lithium Batteries. <i>Nano Letters</i> , 2014, 14, 2873-2878.	4.5	244
14	Copper-Nickel Nitride Nanosheets as Efficient Bifunctional Catalysts for Hydrazine-Assisted Electrolytic Hydrogen Production. <i>Advanced Energy Materials</i> , 2019, 9, 1900390.	10.2	243
15	Self-sacrificed synthesis of three-dimensional $Na_3V_2(PO_4)_3$ nanofiber network for high-rate sodium-ion full batteries. <i>Nano Energy</i> , 2016, 25, 145-153.	8.2	230
16	Atomically targeting NiFe LDH to create multivacancies for OER catalysis with a small organic anchor. <i>Nano Energy</i> , 2021, 81, 105606.	8.2	204
17	Defect engineering activating (Boosting) zinc storage capacity of MoS_2 . <i>Energy Storage Materials</i> , 2019, 16, 527-534.	9.5	199
18	Hierarchical zigzag $Na_{1.25}V_3O_8$ nanowires with topotactically encoded superior performance for sodium-ion battery cathodes. <i>Energy and Environmental Science</i> , 2015, 8, 1267-1275.	15.6	158

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19	Novel $K_3V_2(PO_4)_3/C$ Bundled Nanowires as Superior Sodium-Ion Battery Electrode with Ultrahigh Cycling Stability. <i>Advanced Energy Materials</i> , 2015, 5, 1500716.	10.2	150
20	Built-in oriented electric field facilitating durable Zn MnO ₂ battery. <i>Nano Energy</i> , 2019, 62, 79-84.	8.2	150
21	Field Effect Enhanced Hydrogen Evolution Reaction of MoS ₂ Nanosheets. <i>Advanced Materials</i> , 2017, 29, 1604464.	11.1	148
22	High-Voltage Cycling Induced Thermal Vulnerability in LiCoO ₂ Cathode: Cation Loss and Oxygen Release Driven by Oxygen Vacancy Migration. <i>ACS Nano</i> , 2020, 14, 6181-6190.	7.3	144
23	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> , 2020, 30, 1909283.	7.8	143
24	Heterogeneous branched core-shell SnO ₂ -PANI nanorod arrays with mechanical integrity and three dimensional electron transport for lithium batteries. <i>Nano Energy</i> , 2014, 8, 196-204.	8.2	140
25	Interwoven Three-Dimensional Architecture of Cobalt Oxide Nanobrush-Graphene@Ni ₂ Co ₂ (OH) ₆ for High-Performance Supercapacitors. <i>Nano Letters</i> , 2015, 15, 2037-2044.	4.5	134
26	Air-Stable Porous Fe ₂ N Encapsulated in Carbon Microboxes with High Volumetric Lithium Storage Capacity and a Long Cycle Life. <i>Nano Letters</i> , 2017, 17, 5740-5746.	4.5	132
27	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> , 2015, 2, 1500154.	5.6	114
28	Quicker and More Zn ²⁺ Storage Predominantly from the Interface. <i>Advanced Materials</i> , 2021, 33, e2100359.	11.1	111
29	Enhanced performance of atomically dispersed dual-site Fe-Mn electrocatalysts through cascade reaction mechanism. <i>Applied Catalysis B: Environmental</i> , 2021, 288, 120021.	10.8	104
30	<i>In situ</i> structural evolution of the multi-site alloy electrocatalyst to manipulate the intermediate for enhanced water oxidation reaction. <i>Energy and Environmental Science</i> , 2020, 13, 2200-2208.	15.6	101
31	Cathodic polarization suppressed sodium-ion full cell with a 3.3 V high-voltage. <i>Nano Energy</i> , 2016, 28, 216-223.	8.2	97
32	Boosting Polysulfide Redox Kinetics by Graphene-Supported Ni Nanoparticles with Carbon Coating. <i>Advanced Energy Materials</i> , 2020, 10, 2000907.	10.2	89
33	Phosphorus Enhanced Intermolecular Interactions of SnO ₂ and Graphene as an Ultrastable Lithium Battery Anode. <i>Small</i> , 2017, 13, 1603973.	5.2	87
34	Electrochemical activated MoO ₂ /Mo ₂ N heterostructured nanobelts as superior zinc rechargeable battery cathode. <i>Energy Storage Materials</i> , 2018, 15, 374-379.	9.5	87
35	Reversible (De)Intercalation of Hydrated Zn ²⁺ in Mg ²⁺ -Stabilized V ₂ O ₅ Nanobelts with High Areal Capacity. <i>Advanced Energy Materials</i> , 2020, 10, 2002293.	10.2	84
36	Nonhierarchical Heterostructured Fe ₂ O ₃ /Mn ₂ O ₃ Porous Hollow Spheres for Enhanced Lithium Storage. <i>Small</i> , 2018, 14, e1800659.	5.2	83

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37	Acetylene Black Induced Heterogeneous Growth of Macroporous CoV_2O_6 Nanosheet for High-Rate Pseudocapacitive Lithium-Ion Battery Anode. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 7139-7146.	4.0	81
38	SnS_2 @Graphene nanosheet arrays grown on carbon cloth as freestanding binder-free flexible anodes for advanced sodium batteries. <i>Journal of Alloys and Compounds</i> , 2016, 654, 357-362.	2.8	81
39	Hierarchical Graphene-Encapsulated Hollow SnO_2 @ SnS_2 Nanostructures with Enhanced Lithium Storage Capability. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 22533-22541.	4.0	78
40	Integrated SnO_2 nanorod array with polypyrrole coverage for high-rate and long-life lithium batteries. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 7619-7623.	1.3	74
41	Thermal Induced Strain Relaxation of 1D Iron Oxide for Solid Electrolyte Interphase Control and Lithium Storage Improvement. <i>Advanced Energy Materials</i> , 2017, 7, 1601582.	10.2	73
42	Inhibiting effect of Na^+ pre-intercalation in MoO_3 nanobelts with enhanced electrochemical performance. <i>Nano Energy</i> , 2015, 15, 145-152.	8.2	72
43	Single-Nanowire Electrochemical Probe Detection for Internally Optimized Mechanism of Porous Graphene in Electrochemical Devices. <i>Nano Letters</i> , 2016, 16, 1523-1529.	4.5	72
44	$\text{MoB}/\text{g-C}_3\text{N}_4$ Interface Materials as a Schottky Catalyst to Boost Hydrogen Evolution. <i>Angewandte Chemie</i> , 2018, 130, 505-509.	1.6	71
45	Surface reconstruction of NiCoP pre-catalysts for bifunctional water splitting in alkaline electrolyte. <i>Electrochimica Acta</i> , 2020, 345, 136114.	2.6	71
46	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> , 2021, 118, .	3.3	71
47	Copper silicate nanotubes anchored on reduced graphene oxide for long-life lithium-ion battery. <i>Energy Storage Materials</i> , 2017, 7, 152-156.	9.5	67
48	Facile synthesis of a $\text{Co}_3\text{V}_2\text{O}_8$ interconnected hollow microsphere anode with superior high-rate capability for Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 5075-5080.	5.2	66
49	Sisyphus effects in hydrogen electrochemistry on metal silicides enabled by silicene subunit edge. <i>Science Bulletin</i> , 2019, 64, 617-624.	4.3	65
50	Carbon-supported and nanosheet-assembled vanadium oxide microspheres for stable lithium-ion battery anodes. <i>Nano Research</i> , 2016, 9, 128-138.	5.8	64
51	Sodium Ion Capacitor Using Pseudocapacitive Layered Ferric Vanadate Nanosheets Cathode. <i>IScience</i> , 2018, 6, 212-221.	1.9	63
52	An electrospun hierarchical LiV_3O_8 nanowire-in-network for high-rate and long-life lithium batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 19850-19856.	5.2	61
53	Sodium Superionic Conductors (NASICONs) as Cathode Materials for Sodium-Ion Batteries. <i>Electrochemical Energy Reviews</i> , 2021, 4, 793-823.	13.1	59
54	Carbon-Decorated $\text{Na}_3\text{V}_2(\text{PO}_4)_3$ as Ultralong Lifespan Cathodes for High-Energy-Density Symmetric Sodium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 25036-25043.	4.0	55

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55	Novel Polygonal Vanadium Oxide Nanoscrolls as Stable Cathode for Lithium Storage. <i>Advanced Functional Materials</i> , 2015, 25, 1773-1779.	7.8	54
56	Confinement of Ionic Liquids at Single-Ni-Sites Boost Electroreduction of CO ₂ in Aqueous Electrolytes. <i>ACS Catalysis</i> , 2020, 10, 13171-13178.	5.5	54
57	Nickel Niobate Anodes for High Rate Lithium-Ion Batteries. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	49
58	Gradient SEI layer induced by liquid alloy electrolyte additive for high rate lithium metal battery. <i>Nano Energy</i> , 2021, 88, 106237.	8.2	48
59	Mesoporous VO ₂ nanowires with excellent cycling stability and enhanced rate capability for lithium batteries. <i>RSC Advances</i> , 2014, 4, 33332-33337.	1.7	47
60	Zinc Pyrovanadate Nanoplates Embedded in Graphene Networks with Enhanced Electrochemical Performance. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 2992-2999.	1.8	47
61	Layered ferric vanadate nanosheets as a high-rate NH ₄ ⁺ storage electrode. <i>Electrochimica Acta</i> , 2020, 360, 137008.	2.6	46
62	A programmable and skin temperature-activated electromechanical synergistic dressing for effective wound healing. <i>Science Advances</i> , 2022, 8, eabl8379.	4.7	45
63	Nanoribbons and nanoscrolls intertwined three-dimensional vanadium oxide hydrogels for high-rate lithium storage at high mass loading level. <i>Nano Energy</i> , 2017, 40, 73-81.	8.2	44
64	Surface Gradient Ti-Doped MnO ₂ Nanowires for High-Rate and Long-Life Lithium Battery. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 44376-44384.	4.0	41
65	Sn stabilized pyrovanadate structure rearrangement for zinc ion battery. <i>Nano Energy</i> , 2021, 81, 105584.	8.2	41
66	Pyrolyzed carbon with embedded NiO/Ni nanospheres for applications in microelectrodes. <i>RSC Advances</i> , 2016, 6, 43436-43441.	1.7	37
67	Interconnected Vertically Stacked 2D-MoS ₂ for Ultrastable Cycling of Rechargeable Li-Ion Battery. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 20762-20769.	4.0	37
68	Electrochemical in situ X-ray probing in lithium-ion and sodium-ion batteries. <i>Journal of Materials Science</i> , 2017, 52, 3697-3718.	1.7	36
69	Carbon-coated ultrathin metallic V ₅ Se ₈ nanosheet for high-energy-density and robust potassium storage. <i>Energy Storage Materials</i> , 2021, 35, 1-11.	9.5	35
70	In operando observation of temperature-dependent phase evolution in lithium-incorporation olivine cathode. <i>Nano Energy</i> , 2016, 22, 406-413.	8.2	31
71	Hollow spherical LiNi _{0.5} Mn _{1.5} O ₄ built from polyhedra with high-rate performance via carbon nanotube modification. <i>Science China Materials</i> , 2016, 59, 95-103.	3.5	31
72	Dual-function engineering to construct ultra-stable anodes for potassium-ion hybrid capacitors: N, O-doped porous carbon spheres. <i>Nano Energy</i> , 2022, 93, 106903.	8.2	30

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73	Reconstruction of pH-universal atomic Fe N C catalysts towards oxygen reduction reaction. Journal of Colloid and Interface Science, 2021, 582, 1033-1040.	5.0	29
74	Direct growth of an economic green energy storage material: a monocrystalline jarosite-KFe ₃ (SO ₄) ₂ (OH) ₆ -nanoplates@rGO hybrid as a superior lithium-ion battery cathode. Journal of Materials Chemistry A, 2016, 4, 3735-3742.	5.2	28
75	Flexible bioelectronics for physiological signals sensing and disease treatment. Journal of Materiomics, 2020, 6, 397-413.	2.8	28
76	Compact Sn/SnO ₂ microspheres with gradient composition for high volumetric lithium storage. Energy Storage Materials, 2020, 25, 376-381.	9.5	27
77	Interfacial Electronic Modulation of Multishelled CoP Hollow Spheres via Surface Reconstruction for High-Efficient Hydrogen Evolution Reaction. ACS Applied Energy Materials, 2020, 3, 309-318.	2.5	26
78	3D branched rutile TiO ₂ @ rutile SnO ₂ nanorods array heteroarchitectures/carbon cloth with an adjustable band gap to enhance lithium storage reaction kinetics for flexible lithium-ion batteries. Electrochimica Acta, 2020, 354, 136727.	2.6	26
79	Architecting a Hydrated Ca _{0.24} V ₂ O ₅ Cathode with a Facile Desolvation Interface for Superior-Performance Aqueous Zinc Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 60035-60045.	4.0	26
80	Tremella-like Hydrated Vanadium Oxide Cathode with an Architectural Design Strategy toward Ultralong Lifespan Aqueous Zinc-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 41688-41697.	4.0	25
81	Superior Stability and Dynamic Performance of Single Crystal LiNi _{1/3} Co _{1/3} Mn _{1/3} O ₂ Nanorods from β -MnO ₂ Template for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2019, 166, A59-A67.	1.3	23
82	Electrochemically Exfoliating MoS ₂ into Atomically Thin Planar ϵ -Stacking Through a Selective Lateral Reaction Pathway. Advanced Functional Materials, 2021, 31, 2007840.	7.8	23
83	Interface cation migration kinetics induced oxygen release heterogeneity in layered lithium cathodes. Energy Storage Materials, 2021, 36, 115-122.	9.5	23
84	Oxalate-assisted formation of uniform carbon-confined SnO ₂ nanotubes with enhanced lithium storage. Chemical Communications, 2017, 53, 9542-9545.	2.2	22
85	The Capturing of Ionized Oxygen in Sodium Vanadium Oxide Nanorods Cathodes under Operando Conditions. Advanced Functional Materials, 2016, 26, 6555-6562.	7.8	18
86	Biomimetic synthesis of Na ₃ V ₂ (PO ₄) ₃ nanoparticles wrapped with 3D porous carbon as high-performance cathode for sodium-ion batteries. Ionics, 2021, 27, 1165-1175.	1.2	16
87	Interconnected LiCuVO ₄ networks with in situ Cu generation as high-performance lithium-ion battery anode. Physical Chemistry Chemical Physics, 2017, 19, 13341-13347.	1.3	15
88	Hierarchical Bimetallic Selenide Nanosheet-Constructed Nanotubes for Efficient Electrocatalytic Water Oxidation. ChemElectroChem, 2019, 6, 331-335.	1.7	15
89	Enhanced lithiation dynamics in nanostructured Nb ₁₈ W ₁₆ O ₉₃ anodes. Journal of Power Sources, 2021, 482, 228898.	4.0	15
90	Bottom-up synthesis of graphene films hosting atom-thick molecular-sieving apertures. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	14

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91	In situ visualizing the interplay between the separator and potassium dendrite growth by synchrotron X-ray tomography. <i>Nano Energy</i> , 2021, 83, 105841.	8.2	13
92	FeP Coated in Nitrogen/Phosphorus Co-doped Carbon Shell Nanorods Arrays as High-Rate Capable Flexible Anode for K-ion Half/Full Batteries. <i>Journal of Colloid and Interface Science</i> , 2022, 624, 670-679.	5.0	13
93	A Crystalline/Amorphous Cobalt(II,III) Oxide Hybrid Electrocatalyst for Lithium-Air Batteries. <i>Energy Technology</i> , 2017, 5, 568-579.	1.8	12
94	Illuminating phase transformation dynamics of vanadium oxide cathode by multimodal techniques under operando conditions. <i>Nano Research</i> , 2019, 12, 905-910.	5.8	12
95	Challenges and Perspectives for Doping Strategy for Manganese-Based Zinc-ion Battery Cathode. <i>Energies</i> , 2022, 15, 4698.	1.6	11
96	Potassium-Ion Activating Formation of Fe ^N -C Moiety as Efficient Oxygen Electrocatalyst for Zn-Air Batteries. <i>ChemElectroChem</i> , 2021, 8, 1298-1306.	1.7	10
97	Direct Visualization of Atomic-Scale Heterogeneous Structure Dynamics in MnO ₂ Nanowires. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 33644-33651.	4.0	9
98	Mg ²⁺ Doped LiNi _{1/3} Co _{1/3} Mn _{1/3} O ₂ Hollow Flake-Like Structures with Enhanced Performances Cathodes for Lithium-Ion Batteries. <i>ChemistrySelect</i> , 2020, 5, 1275-1281.	0.7	8
99	A facile surface alloy-engineering route to enable robust lithium metal anodes. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 4751-4758.	1.3	8
100	Multifunctional flexible contact lens for eye health monitoring using inorganic magnetic oxide nanosheets. <i>Journal of Nanobiotechnology</i> , 2022, 20, 202.	4.2	8
101	An integrated flexible film as cathode for High-Performance Lithium-Sulfur battery. <i>Journal of Colloid and Interface Science</i> , 2022, 606, 1627-1635.	5.0	7
102	Crystalline state transformation strategy for improving the catalytic performance of oxygen evolution reaction at high current density. <i>Materials Today Energy</i> , 2020, 18, 100564.	2.5	5
103	2D titanoniobate-titaniumcarbide nanohybrid anodes for ultrafast lithium-ion batteries. <i>Journal of Power Sources</i> , 2021, 512, 230523.	4.0	5
104	Electronic synergy to boost the performance of NiCoP-NWs@FeCoP-NSs anodes for flexible lithium-ion batteries. <i>Nanoscale</i> , 2022, 14, 8398-8408.	2.8	5
105	Quadrupling the stored charge by extending the accessible density of states. <i>CheM</i> , 2022, 8, 2410-2418.	5.8	4
106	Sulfur-Deficient Porous SnS ₂ Microflowers as Superior Anode for Alkaline Ion Batteries. <i>Materials</i> , 2020, 13, 443.	1.3	3
107	Nanowire device for electrochemical energy storage. <i>Chinese Science Bulletin</i> , 2013, 58, 3312-3327.	0.4	1
108	Energy Storage: Novel Polygonal Vanadium Oxide Nanoscrolls as Stable Cathode for Lithium Storage (<i>Adv. Funct. Mater.</i> 12/2015). <i>Advanced Functional Materials</i> , 2015, 25, 1766-1766.	7.8	0

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109	Cycling-Stable Cathodes: The Capturing of Ionized Oxygen in Sodium Vanadium Oxide Nanorods Cathodes under Operando Conditions (Adv. Funct. Mater. 36/2016). Advanced Functional Materials, 2016, 26, 6498-6498.	7.8	0