

Kun Rui

List of Publications by Year in descending order

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papers

5,857
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76326

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times ranked

8040
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#	ARTICLE	IF	CITATIONS
1	Highly sensitive omnidirectional signal manipulation from a flexible anisotropic strain sensor based on aligned carbon hybrid nanofibers. <i>Journal of Materials Chemistry A</i> , 2022, 10, 928-938.	10.3	22
2	Compressive Space Dynamics Manipulation Enabling Wearable Fiber Sensors for Highly Sensitive Human Micromotion Monitoring. <i>Advanced Materials Technologies</i> , 2022, 7, .	5.8	1
3	Molecular Bridging Enables Isolated Iron Atoms on Stereoassembled Carbon Framework To Boost Oxygen Reduction for Zinc-Air Batteries. <i>Chemistry - A European Journal</i> , 2022, 28, .	3.3	4
4	Developing Preparation Craft Platform for Solid Electrolytes Containing Volatile Components: Experimental Study of Competition between Lithium Loss and Densification in $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 33340-33354.	8.0	20
5	Achieving Electronic Engineering of Vanadium Oxide-Based 3D Lithiophilic Sandwiched-Aerogel Framework for Ultrastable Lithium Metal Batteries. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 33306-33314.	8.0	3
6	Recent advances in vanadium-based cathode materials for rechargeable zinc ion batteries. <i>Materials Chemistry Frontiers</i> , 2021, 5, 744-762.	5.9	49
7	Controllable assembling of highly-doped linked carbon bubbles on graphene microfolds. <i>Journal of Energy Chemistry</i> , 2021, 58, 500-507.	12.9	3
8	Vertical nanoarrays with lithiophilic sites suppress the growth of lithium dendrites for ultrastable lithium metal batteries. <i>Chemical Engineering Journal</i> , 2021, 405, 126808.	12.7	24
9	Ultrafast Microwave Polarizing Electrons to Form Vertically Aligned Metal Hybrids as Lithiophilic Buffer for Lithium-Metal Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 16594-16601.	8.0	9
10	Ultrasensitive and Wearable Carbon Hybrid Fiber Devices as Robust Intelligent Sensors. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 23905-23914.	8.0	29
11	Metal-organic framework-derived carbon decorated Ni-Sn nanostructures for ultrastable metal-ion batteries. <i>Composites Communications</i> , 2021, 25, 100724.	6.3	2
12	Carbonitridation Pyrolysis Synthesis of Prussian Blue Analog-Derived Carbon Hybrids for Lithium-Ion Batteries. <i>Advanced Sustainable Systems</i> , 2021, 5, 2100223.	5.3	9
13	Metallic vanadium trioxide intercalated with phase transformation for advanced aqueous zinc-ion batteries. <i>Journal of Energy Chemistry</i> , 2021, 61, 594-601.	12.9	30
14	Recent advances in Cu-based catalysts for electroreduction of carbon dioxide. <i>Materials Chemistry Frontiers</i> , 2021, 5, 2668-2683.	5.9	21
15	Understanding the structural and chemical evolution of layered potassium titanates for sodium ion batteries. <i>Energy Storage Materials</i> , 2020, 25, 502-509.	18.0	17
16	Poly(ionic liquid) derived N-doped carbon@SnOx nanostructures self-reconstruction for alkaline-metal-ion batteries. <i>Journal of Power Sources</i> , 2020, 449, 227509.	7.8	9
17	Ultrafast Microwave Activating Polarized Electron for Scalable Porous Al toward High-Energy-Density Batteries. <i>Nano Letters</i> , 2020, 20, 8818-8824.	9.1	30
18	Structure Design of Ni-Co Hydroxide Nanoarrays with Facet Engineering on Carbon Chainlike Nanofibers for High-Efficiency Oxygen Evolution. <i>ACS Applied Energy Materials</i> , 2020, 3, 6240-6248.	5.1	20

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19	Boosting electrochemical water oxidation: the merits of heterostructured electrocatalysts. <i>Journal of Materials Chemistry A</i> , 2020, 8, 6393-6405.	10.3	63
20	Rational design of hierarchical carbon hybrid microassemblies via reductive-catalytic chemical vapor deposition. <i>Carbon</i> , 2020, 167, 422-430.	10.3	6
21	General Approach to Single and Hybrid Metal Oxide Fiber Structures for High-Performance Lithium-Ion Batteries. <i>Chemistry - an Asian Journal</i> , 2020, 15, 1105-1109.	3.3	0
22	Selective Solid-Liquid Interface Sulfidation Growth of Hierarchical Copper Sulfide and Its Hybrid Nanoflakes for Superior Lithium-Ion Storage. <i>Chemistry - an Asian Journal</i> , 2020, 15, 1722-1727.	3.3	2
23	Stereoassembled V_2O_5 @FeOOH Hollow Architectures with Lithiation Volumetric Strain Self-Reconstruction for Lithium-Ion Storage. <i>Research</i> , 2020, 2020, 2360796.	5.7	16
24	Recent Progress on Nickel-Based Oxide/(Oxy)Hydroxide Electrocatalysts for the Oxygen Evolution Reaction. <i>Chemistry - A European Journal</i> , 2019, 25, 703-713.	3.3	170
25	Electrocatalytically inactive SnS ₂ promotes water adsorption/dissociation on molybdenum dichalcogenides for accelerated alkaline hydrogen evolution. <i>Nano Energy</i> , 2019, 64, 103918.	16.0	58
26	Low-Coordinate Iridium Oxide Confined on Graphitic Carbon Nitride for Highly Efficient Oxygen Evolution. <i>Angewandte Chemie</i> , 2019, 131, 12670-12674.	2.0	15
27	Low-Coordinate Iridium Oxide Confined on Graphitic Carbon Nitride for Highly Efficient Oxygen Evolution. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 12540-12544.	13.8	208
28	Surface Anionization of Self-Assembled Iron Sulfide Hierarchitectures to Enhance Capacitive Storage for Alkaline-Metal-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 39991-39997.	8.0	25
29	Topochemical pyrolytic synthesis of quasi-Mxene hybrids via ionic liquid-iron phthalocyanine as a self-template. <i>Chemical Communications</i> , 2019, 55, 771-774.	4.1	4
30	Direct Hybridization of Noble Metal Nanostructures on 2D Metal-Organic Framework Nanosheets To Catalyze Hydrogen Evolution. <i>Nano Letters</i> , 2019, 19, 8447-8453.	9.1	160
31	Engineering additional edge sites on molybdenum dichalcogenides toward accelerated alkaline hydrogen evolution kinetics. <i>Nanoscale</i> , 2019, 11, 717-724.	5.6	37
32	Manipulating Li ₂ O atmosphere for sintering dense Li ₇ La ₃ Zr ₂ O ₁₂ solid electrolyte. <i>Energy Storage Materials</i> , 2019, 22, 207-217.	18.0	114
33	Semiconductor-to-Metal Transitions: Nitrogen Boosts Defective Vanadium Oxide from Semiconducting to Metallic Merit (Small 22/2019). <i>Small</i> , 2019, 15, 1970116.	10.0	1
34	Electronic Structure Engineering of LiCoO ₂ toward Enhanced Oxygen Electrocatalysis. <i>Advanced Energy Materials</i> , 2019, 9, 1803482.	19.5	85
35	Hydrogel self-templated synthesis of Na ₃ V ₂ (PO ₄) ₃ @C@CNT porous network as ultrastable cathode for sodium-ion batteries. <i>Composites Communications</i> , 2019, 13, 97-102.	6.3	38
36	Nitrogen Boosts Defective Vanadium Oxide from Semiconducting to Metallic Merit. <i>Small</i> , 2019, 15, e1900583.	10.0	15

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37	Using and recycling V ₂ O ₅ as high performance anode materials for sustainable lithium ion battery. <i>Journal of Power Sources</i> , 2019, 424, 158-164.	7.8	42
38	Rational Design of a Flexible CNTs@PDMS Film Patterned by Bio-Inspired Templates as a Strain Sensor and Supercapacitor. <i>Small</i> , 2019, 15, e1805493.	10.0	91
39	Platinum/Nickel Bicarbonate Heterostructures towards Accelerated Hydrogen Evolution under Alkaline Conditions. <i>Angewandte Chemie</i> , 2019, 131, 5486-5491.	2.0	30
40	Stereoselectively Assembled Metal-Organic Framework (MOF) Host for Catalytic Synthesis of Carbon Hybrids for Alkaline-Metal-Ion Batteries. <i>Angewandte Chemie</i> , 2019, 131, 5361-5365.	2.0	27
41	Stereoselectively Assembled Metal-Organic Framework (MOF) Host for Catalytic Synthesis of Carbon Hybrids for Alkaline-Metal-Ion Batteries. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 5307-5311.	13.8	79
42	Platinum/Nickel Bicarbonate Heterostructures towards Accelerated Hydrogen Evolution under Alkaline Conditions. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 5432-5437.	13.8	194
43	Coaxial-cable hierarchical tubular MnO ₂ @Fe ₃ O ₄ @C heterostructures as advanced anodes for lithium-ion batteries. <i>Nanotechnology</i> , 2019, 30, 094002.	2.6	5
44	Iron-Doped Nickel Molybdate with Enhanced Oxygen Evolution Kinetics. <i>Chemistry - A European Journal</i> , 2019, 25, 280-284.	3.3	38
45	Borohydride-Scaffolded Li/Na/Mg Fast Ionic Conductors for Promising Solid-State Electrolytes. <i>Advanced Materials</i> , 2019, 31, e1803533.	21.0	105
46	Heteroatom-doped MoSe ₂ Nanosheets with Enhanced Hydrogen Evolution Kinetics for Alkaline Water Splitting. <i>Chemistry - an Asian Journal</i> , 2019, 14, 301-306.	3.3	41
47	Flexible phosphorus doped carbon nanosheets/nanofibers: Electrospun preparation and enhanced Li-storage properties as free-standing anodes for lithium ion batteries. <i>Journal of Power Sources</i> , 2018, 384, 27-33.	7.8	42
48	Dual-Function Metal-Organic Framework-Based Wearable Fibers for Gas Probing and Energy Storage. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 2837-2842.	8.0	68
49	New insights into understanding the exceptional electrochemical performance of P2-type manganese-based layered oxide cathode for sodium ion batteries. <i>Energy Storage Materials</i> , 2018, 15, 257-265.	18.0	86
50	Hybrid 2D Dual-Metal-Organic Frameworks for Enhanced Water Oxidation Catalysis. <i>Advanced Functional Materials</i> , 2018, 28, 1801554.	14.9	550
51	Pre-modified Li ₃ PS ₄ based interphase for lithium anode towards high-performance Li-S battery. <i>Energy Storage Materials</i> , 2018, 11, 16-23.	18.0	119
52	Carbon Necklace Incorporated Electroactive Reservoir Constructing Flexible Papers for Advanced Lithium-Ion Batteries. <i>Small</i> , 2018, 14, 1702770.	10.0	70
53	Topochemical Synthesis of 2D Carbon Hybrids through Self-Boosting Catalytic Carbonization of a Metal-Polymer Framework. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 16436-16441.	13.8	50
54	Topochemical Synthesis of 2D Carbon Hybrids through Self-Boosting Catalytic Carbonization of a Metal-Polymer Framework. <i>Angewandte Chemie</i> , 2018, 130, 16674-16679.	2.0	9

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55	Epitaxial growth of Ni(OH) ₂ nanoclusters on MoS ₂ nanosheets for enhanced alkaline hydrogen evolution reaction. <i>Nanoscale</i> , 2018, 10, 19074-19081.	5.6	74
56	An <i>in situ</i> element permeation constructed high endurance Li ⁺ /LLZO interface at high current densities. <i>Journal of Materials Chemistry A</i> , 2018, 6, 18853-18858.	10.3	157
57	CoSe ₂ /MoSe ₂ Heterostructures with Enriched Water Adsorption/Dissociation Sites towards Enhanced Alkaline Hydrogen Evolution Reaction. <i>Chemistry - A European Journal</i> , 2018, 24, 11158-11165.	3.3	82
58	Highly stable garnet solid electrolyte based Li-S battery with modified anodic and cathodic interfaces. <i>Energy Storage Materials</i> , 2018, 15, 282-290.	18.0	121
59	Cost-Effective Vertical Carbon Nanosheets/Iron-Based Composites as Efficient Electrocatalysts for Water Splitting Reaction. <i>Chemistry of Materials</i> , 2018, 30, 4762-4769.	6.7	48
60	Heterostructures for Electrochemical Hydrogen Evolution Reaction: A Review. <i>Advanced Functional Materials</i> , 2018, 28, 1803291.	14.9	906
61	Fe ₇ S ₈ Nanoparticles Anchored on Nitrogen-Doped Graphene Nanosheets as Anode Materials for High-Performance Sodium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 29476-29485.	8.0	75
62	Scalable synthesis of hierarchical porous Ge/rGO microspheres with an ultra-long cycling life for lithium storage. <i>Journal of Power Sources</i> , 2018, 396, 124-133.	7.8	45
63	Ultrathin and large-sized vanadium oxide nanosheets mildly prepared at room temperature for high performance fiber-based supercapacitors. <i>Journal of Materials Chemistry A</i> , 2017, 5, 2483-2487.	10.3	66
64	Sulfonic Groups Originated Dual-Functional Interlayer for High Performance Lithium ⁺ /Sulfur Battery. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 14878-14888.	8.0	126
65	2D Black Phosphorus for Energy Storage and Thermoelectric Applications. <i>Small</i> , 2017, 13, 1700661.	10.0	139
66	Self-Templated Formation of Uniform Fe ₃ CuO Hollow Octahedra for Lithium Ion Batteries. <i>Small</i> , 2017, 13, 1603500.	10.0	31
67	A novel strategy to prepare Ge@C/rGO hybrids as high-rate anode materials for lithium ion batteries. <i>Journal of Power Sources</i> , 2017, 342, 521-528.	7.8	50
68	Interconnected CoFe ₂ O ₄ @Polypyrrole Nanotubes as Anode Materials for High Performance Sodium Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 36927-36935.	8.0	56
69	Interlayer-Expanded Metal Sulfides on Graphene Triggered by a Molecularly Self-Promoting Process for Enhanced Lithium Ion Storage. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 40317-40323.	8.0	28
70	FeS ₂ microsphere as cathode material for rechargeable lithium batteries. <i>Solid State Ionics</i> , 2016, 290, 47-52.	2.7	21
71	Influence of La ₂ Zr ₂ O ₇ Additive on Densification and Li ⁺ Conductivity for Ta-Doped Li ₇ La ₃ Zr ₂ O ₁₂ Garnet. <i>Jom</i> , 2016, 68, 2593-2600.	1.9	46
72	On the dispersion of lithium-sulfur battery cathode materials effected by electrostatic and stereo-chemical factors of binders. <i>Journal of Power Sources</i> , 2016, 324, 455-461.	7.8	56

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73	Anchoring Nanostructured Manganese Fluoride on Few-Layer Graphene Nanosheets as Anode for Enhanced Lithium Storage. ACS Applied Materials & Interfaces, 2016, 8, 1819-1826.	8.0	31
74	Reduced free-standing Co_3O_4 @Ni cathode for lithium-oxygen batteries with enhanced electrochemical performance. RSC Advances, 2016, 6, 16263-16267.	3.6	16
75	Controlled construction of 3D hierarchical manganese fluoride nanostructures via an oleylamine-assisted solvothermal route with high performance for rechargeable lithium ion batteries. RSC Advances, 2016, 6, 27170-27176.	3.6	10
76	High-performance lithium storage in an ultrafine manganese fluoride nanorod anode with enhanced electrochemical activation based on conversion reaction. Physical Chemistry Chemical Physics, 2016, 18, 3780-3787.	2.8	15
77	Reversible ion exchange and structural stability of garnet-type Nb-doped $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ in water for applications in lithium batteries. Journal of Power Sources, 2015, 282, 286-293.	7.8	104
78	Open mesoporous spherical shell structured Co_3O_4 with highly efficient catalytic performance in $\text{Li}-\text{O}_2$ batteries. Journal of Materials Chemistry A, 2015, 3, 7600-7606.	10.3	36
79	Wave-like free-standing NiCo_2O_4 cathode for lithium-oxygen battery with high discharge capacity. Journal of Power Sources, 2015, 294, 593-601.	7.8	37
80	One-Step Solvothermal Synthesis of Nanostructured Manganese Fluoride as an Anode for Rechargeable Lithium-Ion Batteries and Insights into the Conversion Mechanism. Advanced Energy Materials, 2015, 5, 1401716.	19.5	97
81	Graphene nanosheets loaded with Pt nanoparticles with enhanced electrochemical performance for sodium-oxygen batteries. Journal of Materials Chemistry A, 2015, 3, 2568-2571.	10.3	76
82	Enhanced performance of lithium sulfur battery with polypyrrole warped mesoporous carbon/sulfur composite. Journal of Power Sources, 2014, 254, 353-359.	7.8	140
83	Mesoporous carbon/sulfur composite with polyaniline coating for lithium sulfur batteries. Solid State Ionics, 2014, 262, 170-173.	2.7	35
84	Hierarchical mesoporous iron-based fluoride with partially hollow structure: facile preparation and high performance as cathode material for rechargeable lithium ion batteries. Physical Chemistry Chemical Physics, 2014, 16, 8556.	2.8	42
85	Size-controlled synthesis of hierarchical nanoporous iron based fluorides and their high performances in rechargeable lithium ion batteries. Chemical Communications, 2014, 50, 6487.	4.1	32
86	Worm-like mesoporous structured iron-based fluoride: Facile preparation and application as cathodes for rechargeable lithium ion batteries. Journal of Power Sources, 2013, 244, 306-311.	7.8	17
87	Carbon coated $\text{Li}_4\text{Ti}_5\text{O}_{12}$ nanorods as superior anode material for high rate lithium ion batteries. Journal of Alloys and Compounds, 2013, 572, 37-42.	5.5	77