Kun Rui

List of Publications by Year
in descending order

87 papers	5,857 citations	76326 40 h-index	74163 75 g-index
88 all docs	88 docs citations	88 times ranked	8040 citing authors

#	Article	IF	Citations
1	Heterostructures for Electrochemical Hydrogen Evolution Reaction: A Review. Advanced Functional Materials, 2018, 28, 1803291.	14.9	906
2	Hybrid 2D Dualâ€Metalâ€“Organic Frameworks for Enhanced Water Oxidation Catalysis. Advanced Functional Materials, 2018, 28, 1801554.	14.9	550
3	Lowâ€Coordinate Iridium Oxide Confined on Graphitic Carbon Nitride for Highly Efficient Oxygen Evolution. Angewandte Chemie - International Edition, 2019, 58, 12540-12544.	13.8	208
4	Platinum/Nickel Bicarbonate Heterostructures towards Accelerated Hydrogen Evolution under Alkaline Conditions. Angewandte Chemie - International Edition, 2019, 58, 5432-5437.	13.8	194
5	Recent Progress on Nickelâ€Based Oxide/(Oxy)Hydroxide Electrocatalysts for the Oxygen Evolution Reaction. Chemistry - A European Journal, 2019, 25, 703-713.	3.3	170
6	Direct Hybridization of Noble Metal Nanostructures on 2D Metalâ€“Organic Framework Nanosheets To Catalyze Hydrogen Evolution. Nano Letters, 2019, 19, 8447-8453.	9.1	160
7	An in situ element permeation constructed high endurance Liâ€“LLZO interface at high current densities. Journal of Materials Chemistry A, 2018, 6, 18853-18858.	10.3	157
8	Enhanced performance of lithium sulfur battery with polypyrrole warped mesoporous carbon/sulfur composite. Journal of Power Sources, 2014, 254, 353-359.	7.8	140
9	2D Black Phosphorus for Energy Storage and Thermoelectric Applications. Small, 2017, 13, 1700661.	10.0	139
10	Sulfonic Groups Originated Dual-Functional Interlayer for High Performance Lithiumâ€“Sulfur Battery. ACS Applied Materials & Interfaces, 2017, 9, 14878-14888.	8.0	126
11	Highly stable garnet solid electrolyte based Li-S battery with modified anodic and cathodic interfaces. Energy Storage Materials, 2018, 15, 282-290.	18.0	121
12	Pre-modified Li3PS4 based interphase for lithium anode towards high-performance Li-S battery. Energy Storage Materials, 2018, 11, 16-23.	18.0	119
13	Manipulating Li2O atmosphere for sintering dense Li7La3Zr2O12 solid electrolyte. Energy Storage Materials, 2019, 22, 207-217.	18.0	114
14	Borohydrideâ€Scaffolded Li/Na/Mg Fast Ionic Conductors for Promising Solidâ€State Electrolytes. Advanced Materials, 2019, 31, e1803533.	21.0	105
15	Reversible ion exchange and structural stability of garnet-type Nb-doped Li7La3Zr2O12 in water for applications in lithium batteries. Journal of Power Sources, 2015, 282, 286-293.	7.8	104
16	Oneâ€Step Solvothermal Synthesis of Nanostructured Manganese Fluoride as an Anode for Rechargeable Lithiumâ€Ion Batteries and Insights into the Conversion Mechanism. Advanced Energy Materials, 2015, 5, 1401716.	19.5	97
17	Rational Design of a Flexible CNTs@PDMS Film Patterned by Bioâ€Inspired Templates as a Strain Sensor and Supercapacitor. Small, 2019, 15, e1805493.	10.0	91
18	New insights into understanding the exceptional electrochemical performance of P2-type manganese-based layered oxide cathode for sodium ion batteries. Energy Storage Materials, 2018, 15, 257-265.	18.0	86

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19	Electronic Structure Engineering of LiCoO₂ toward Enhanced Oxygen Electrocatalysis. Advanced Energy Materials, 2019, 9, 1803482.	19.5	85
20	CoSe₂/MoSe₂ Heterostructures with Enriched Water Adsorption/Dissociation Sites towards Enhanced Alkaline Hydrogen Evolution Reaction. Chemistry - A European Journal, 2018, 24, 11158-11165.	3.3	82
21	Stereoselectively Assembled Metalâ€“Organic Framework (MOF) Host for Catalytic Synthesis of Carbon Hybrids for Alkalineâ€Metalâ€Ion Batteries. Angewandte Chemie - International Edition, 2019, 58, 5307-5311.	13.8	79
22	Carbon coated Li4Ti5O12 nanorods as superior anode material for high rate lithium ion batteries. Journal of Alloys and Compounds, 2013, 572, 37-42.	5.5	77
23	Graphene nanosheets loaded with Pt nanoparticles with enhanced electrochemical performance for sodiumâ€“oxygen batteries. Journal of Materials Chemistry A, 2015, 3, 2568-2571.	10.3	76
24	Fe₇S₈ Nanoparticles Anchored on Nitrogen-Doped Graphene Nanosheets as Anode Materials for High-Performance Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2018, 10, 29476-29485.	8.0	75
25	Epitaxial growth of Ni(OH)₂ nanoclusters on MoS₂ nanosheets for enhanced alkaline hydrogen evolution reaction. Nanoscale, 2018, 10, 19074-19081.	5.6	74
26	Carbon Necklace Incorporated Electroactive Reservoir Constructing Flexible Papers for Advanced Lithiumâ€“Ion Batteries. Small, 2018, 14, 1702770.	10.0	70
27	Dual-Function Metalâ€“Organic Framework-Based Wearable Fibers for Gas Probing and Energy Storage. ACS Applied Materials & Interfaces, 2018, 10, 2837-2842.	8.0	68
28	Ultrathin and large-sized vanadium oxide nanosheets mildly prepared at room temperature for high performance fiber-based supercapacitors. Journal of Materials Chemistry A, 2017, 5, 2483-2487.	10.3	66
29	Boosting electrochemical water oxidation: the merits of heterostructured electrocatalysts. Journal of Materials Chemistry A, 2020, 8, 6393-6405.	10.3	63
30	Electrocatalytically inactive SnS2 promotes water adsorption/dissociation on molybdenum dichalcogenides for accelerated alkaline hydrogen evolution. Nano Energy, 2019, 64, 103918.	16.0	58
31	On the dispersion of lithium-sulfur battery cathode materials effected by electrostatic and stereo-chemical factors of binders. Journal of Power Sources, 2016, 324, 455-461.	7.8	56
32	Interconnected CoFe₂O₄â€“Polypyrrole Nanotubes as Anode Materials for High Performance Sodium Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 36927-36935.	8.0	56
33	A novel strategy to prepare Ge@C/rGO hybrids as high-rate anode materials for lithium ion batteries. Journal of Power Sources, 2017, 342, 521-528.	7.8	50
34	Topochemical Synthesis of 2D Carbon Hybrids through Selfâ€Boosting Catalytic Carbonization of a Metalâ€“Polymer Framework. Angewandte Chemie - International Edition, 2018, 57, 16436-16441.	13.8	50
35	Recent advances in vanadium-based cathode materials for rechargeable zinc ion batteries. Materials Chemistry Frontiers, 2021, 5, 744-762.	5.9	49
36	Cost-Effective Vertical Carbon Nanosheets/Iron-Based Composites as Efficient Electrocatalysts for Water Splitting Reaction. Chemistry of Materials, 2018, 30, 4762-4769.	6.7	48

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37	Influence of La2Zr2O7 Additive on Densification and Li+ Conductivity for Ta-Doped Li7La3Zr2O12 Garnet. Jom, 2016, 68, 2593-2600.	1.9	46
38	Scalable synthesis of hierarchical porous Ge/rGO microspheres with an ultra-long cycling life for lithium storage. Journal of Power Sources, 2018, 396, 124-133.	7.8	45
39	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
40	Flexible phosphorus doped carbon nanosheets/nanofibers: Electrospun preparation and enhanced Li-storage properties as free-standing anodes for lithium ion batteries. Journal of Power Sources, 2018, 384, 27-33.	7.8	42
41	Using and recycling V2O5 as high performance anode materials for sustainable lithium ion battery. Journal of Power Sources, 2019, 424, 158-164.	7.8	42
42	Heteroatomâ€doped MoSe₂ Nanosheets with Enhanced Hydrogen Evolution Kinetics for Alkaline Water Splitting. Chemistry - an Asian Journal, 2019, 14, 301-306.	3.3	41
43	Hydrogel self-templated synthesis of Na3V2(PO4)3@C@CNT porous network as ultrastable cathode for sodium-ion batteries. Composites Communications, 2019, 13, 97-102.	6.3	38
44	Ironâ€Doped Nickel Molybdate with Enhanced Oxygen Evolution Kinetics. Chemistry - A European Journal, 2019, 25, 280-284.	3.3	38
45	Wave-like free-standing NiCo2O4 cathode for lithiumâ€“oxygen battery with high discharge capacity. Journal of Power Sources, 2015, 294, 593-601.	7.8	37
46	Engineering additional edge sites on molybdenum dichalcogenides toward accelerated alkaline hydrogen evolution kinetics. Nanoscale, 2019, 11, 717-724.	5.6	37
47	Open mesoporous spherical shell structured Co3O4with highly efficient catalytic performance in Liâ€“O2batteries. Journal of Materials Chemistry A, 2015, 3, 7600-7606.	10.3	36
48	Mesoporous carbon/sulfur composite with polyaniline coating for lithium sulfur batteries. Solid State Ionics, 2014, 262, 170-173.	2.7	35
49	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
50	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
51	Selfâ€Templated Formation of Uniform Fâ€CuO Hollow Octahedra for Lithium Ion Batteries. Small, 2017, 13, 1603500.	10.0	31
52	Platinum/Nickel Bicarbonate Heterostructures towards Accelerated Hydrogen Evolution under Alkaline Conditions. Angewandte Chemie, 2019, 131, 5486-5491.	2.0	30
53	Ultrafast Microwave Activating Polarized Electron for Scalable Porous Al toward High-Energy-Density Batteries. Nano Letters, 2020, 20, 8818-8824.	9.1	30
54	Metallic vanadium trioxide intercalated with phase transformation for advanced aqueous zinc-ion batteries. Journal of Energy Chemistry, 2021, 61, 594-601.	12.9	30

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55	Ultrasensitive and Wearable Carbon Hybrid Fiber Devices as Robust Intelligent Sensors. ACS Applied Materials & Interfaces, 2021, 13, 23905-23914.	8.0	29
56	Interlayer-Expanded Metal Sulfides on Graphene Triggered by a Molecularly Self-Promoting Process for Enhanced Lithium Ion Storage. ACS Applied Materials & Interfaces, 2017, 9, 40317-40323.	8.0	28
57	Stereoselectively Assembled Metalâ€“Organic Framework (MOF) Host for Catalytic Synthesis of Carbon Hybrids for Alkalineâ€Metalâ€Ion Batteries. Angewandte Chemie, 2019, 131, 5361-5365.	2.0	27
58	Surface Anionization of Self-Assembled Iron Sulfide Hierarchitectures to Enhance Capacitive Storage for Alkaline-Metal-Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 39991-39997.	8.0	25
59	Vertical nanoarrays with lithiophilic sites suppress the growth of lithium dendrites for ultrastable lithium metal batteries. Chemical Engineering Journal, 2021, 405, 126808.	12.7	24
60	Highly sensitive omnidirectional signal manipulation from a flexible anisotropic strain sensor based on aligned carbon hybrid nanofibers. Journal of Materials Chemistry A, 2022, 10, 928-938.	10.3	22
61	FeS2 microsphere as cathode material for rechargeable lithium batteries. Solid State Ionics, 2016, 290, 47-52.	2.7	21
62	Recent advances in Cu-based catalysts for electroreduction of carbon dioxide. Materials Chemistry Frontiers, 2021, 5, 2668-2683.	5.9	21
63	Structure Design of Niâ€“Co Hydroxide Nanoarrays with Facet Engineering on Carbon Chainlike Nanofibers for High-Efficiency Oxygen Evolution. ACS Applied Energy Materials, 2020, 3, 6240-6248.	5.1	20
64	Developing Preparation Craft Platform for Solid Electrolytes Containing Volatile Components: Experimental Study of Competition between Lithium Loss and Densification in Li₇La₃Zr₂O₁₂. ACS Applied Materials & Interfaces, 2022, 14, 33340-33354.	8.0	20
65	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
66	Understanding the structural and chemical evolution of layered potassium titanates for sodium ion batteries. Energy Storage Materials, 2020, 25, 502-509.	18.0	17
67	Reduced free-standing Co₃O₄@Ni cathode for lithiumâ€“oxygen batteries with enhanced electrochemical performance. RSC Advances, 2016, 6, 16263-16267.	3.6	16
68	Stereoassembled V ₂ O ₅ @FeOOH Hollow Architectures with Lithiation Volumetric Strain Self-Reconstruction for Lithium-Ion Storage. Research, 2020, 2020, 2360796.	5.7	16
69	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
70	Lowâ€Coordinate Iridium Oxide Confined on Graphitic Carbon Nitride for Highly Efficient Oxygen Evolution. Angewandte Chemie, 2019, 131, 12670-12674.	2.0	15
71	Nitrogen Boosts Defective Vanadium Oxide from Semiconducting to Metallic Merit. Small, 2019, 15, e1900583.	10.0	15
72	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

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73	Topochemical Synthesis of 2D Carbon Hybrids through Selfâ€Boosting Catalytic Carbonization of a Metalâ€“Polymer Framework. Angewandte Chemie, 2018, 130, 16674-16679.	2.0	9
74	Poly(ionic liquid) derived N-doped carbon@SnOx nanostructures self-reconstruction for alkaline-metal-ion batteries. Journal of Power Sources, 2020, 449, 227509.	7.8	9
75	Ultrafast Microwave Polarizing Electrons to Form Vertically Aligned Metal Hybrids as Lithiophilic Buffer for Lithium-Metal Batteries. ACS Applied Materials & Interfaces, 2021, 13, 16594-16601.	8.0	9
76	Carbonitridation Pyrolysis Synthesis of Prussian Blue Analogâ€Derived Carbon Hybrids for Lithiumâ€Ion Batteries. Advanced Sustainable Systems, 2021, 5, 2100223.	5.3	9
77	Rational design of hierarchical carbon hybrid microassemblies via reductive-catalytic chemical vapor deposition. Carbon, 2020, 167, 422-430.	10.3	6
78	Coaxial-cable hierarchical tubular MnO₂@Fe₃O₄@C heterostructures as advanced anodes for lithium-ion batteries. Nanotechnology, 2019, 30, 094002.	2.6	5
79	Topochemical pyrolytic synthesis of quasi-Mxene hybrids via ionic liquid-iron phthalocyanine as a self-template. Chemical Communications, 2019, 55, 771-774.	4.1	4
80	Molecular Bridging Enables Isolated Iron Atoms on Stereoassembled Carbon Framework To Boost Oxygen Reduction for Zincâ€Air Batteries. Chemistry - A European Journal, 2022, 28, .	3.3	4
81	Controllable assembling of highly-doped linked carbon bubbles on graphene microfolds. Journal of Energy Chemistry, 2021, 58, 500-507.	12.9	3
82	Achieving Electronic Engineering of Vanadium Oxide-Based 3D Lithiophilic Sandwiched-Aerogel Framework for Ultrastable Lithium Metal Batteries. ACS Applied Materials & Interfaces, 2022, 14, 33306-33314.	8.0	3
83	Selective Solidâ€Liquid Interface Sulfidation Growth of Hierarchical Copper Sulfide and Its Hybrid Nanoflakes for Superior Lithiumâ€Ion Storage. Chemistry - an Asian Journal, 2020, 15, 1722-1727.	3.3	2
84	Metalâ€“organic framework-derived carbon decorated Niâ€“Sn nanostructures for ultrastable metal-ion batteries. Composites Communications, 2021, 25, 100724.	6.3	2
85	Semiconductorâ€toâ€Metal Transitions: Nitrogen Boosts Defective Vanadium Oxide from Semiconducting to Metallic Merit (Small 22/2019). Small, 2019, 15, 1970116.	10.0	1
86	Compressive Space Dynamics Manipulation Enabling Wearable Fiber Sensors for Highly Sensitive Human Micromotion Monitoring. Advanced Materials Technologies, 2022, 7, .	5.8	1
87	General Approach to Single and Hybrid Metal Oxide Fiber Structures for Highâ€Performance Lithiumâ€Ion Batteries. Chemistry - an Asian Journal, 2020, 15, 1105-1109.	3.3	0