

# Rui Gao

## List of Publications by Year in descending order

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Version: 2024-02-01

61  
papers

3,416  
citations

136740

32  
h-index

149479

56  
g-index

62  
all docs

62  
docs citations

62  
times ranked

3053  
citing authors

#	ARTICLE	IF	CITATIONS
1	Eutectic Etching toward In-plane Porosity Manipulation of Cl-terminated MXene for High-performance Dual-ion Battery Anode. <i>Advanced Energy Materials</i> , 2022, 12, 2102493.	10.2	37
2	Thermal migration towards constructing W-W dual-sites for boosted alkaline hydrogen evolution reaction. <i>Nature Communications</i> , 2022, 13, 763.	5.8	68
3	Hierarchical Architecture of Well-aligned Nanotubes Supported Bimetallic Catalysis for Efficient Oxygen Redox. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	20
4	Materials Engineering toward Durable Electrocatalysts for Proton Exchange Membrane Fuel Cells. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	61
5	Anodic Shock-Triggered Exsolution of Metal Nanoparticles from Perovskite Oxide. <i>Journal of the American Chemical Society</i> , 2022, 144, 7657-7666.	6.6	15
6	A novel design of 3D carbon host for stable lithium metal anode. , 2022, 4, 654-664.		29
7	Nano-crumpled induced Sn-Bi bimetallic interface pattern with moderate electron bank for highly efficient CO <sub>2</sub> electroreduction. <i>Nature Communications</i> , 2022, 13, 2486.	5.8	99
8	Study on thermal stability and irradiation response of copper/iron nano-multilayer composite fabricated by cross accumulative roll bonding. <i>Journal of Nuclear Materials</i> , 2021, 543, 152548.	1.3	13
9	Self-templated Hierarchically Porous Carbon Nanorods Embedded with Atomic Fe <sub>4</sub> Active Sites as Efficient Oxygen Reduction Electrocatalysts in Zn-Air Batteries. <i>Advanced Functional Materials</i> , 2021, 31, 2008085.	7.8	117
10	Behavior and mechanism of internal friction peak in quenched Fe-18 at.% Ga alloy. <i>Journal of Alloys and Compounds</i> , 2021, 856, 158178.	2.8	11
11	Dissolving Vanadium into Titanium Nitride Lattice Framework for Rational Polysulfide Regulation in Li-S Batteries. <i>Advanced Energy Materials</i> , 2021, 11, 2003020.	10.2	52
12	Cationic-anionic redox couple gradient to immunize against irreversible processes of Li-rich layered oxides. <i>Journal of Materials Chemistry A</i> , 2021, 9, 2325-2333.	5.2	20
13	Fabrication of an ultrafine-grained W-ZrC-Re alloy with high thermal stability. <i>Fusion Engineering and Design</i> , 2021, 164, 112208.	1.0	9
14	Modulating Metal-Organic Frameworks as Advanced Oxygen Electrocatalysts. <i>Advanced Energy Materials</i> , 2021, 11, 2003291.	10.2	105
15	Ultra-high-voltage Ni-rich layered cathodes in practical Li metal batteries enabled by a sulfonamide-based electrolyte. <i>Nature Energy</i> , 2021, 6, 495-505.	19.8	323
16	Hybrid diffusive-displacive helium outgassing in Cu/Nb multilayer composites. <i>Scripta Materialia</i> , 2021, 194, 113706.	2.6	10
17	A Gas-phase Migration Strategy to Synthesize Atomically Dispersed Mn <sub>4</sub> C Catalysts for Zn-Air Batteries. <i>Small Methods</i> , 2021, 5, e2100024.	4.6	44
18	Two Ships in a Bottle-Design for Zn-Ag-O Catalyst Enabling Selective and Long-Lasting CO <sub>2</sub> Electroreduction. <i>Journal of the American Chemical Society</i> , 2021, 143, 6855-6864.	6.6	139

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19	Magnetic-Field-Stimulated Efficient Photocatalytic N <sub>2</sub> Fixation over Defective BaTiO <sub>3</sub> Perovskites. <i>Angewandte Chemie</i> , 2021, 133, 12017-12025.	1.6	18
20	Self-Perpetuating Carbon Foam Microwave Plasma Conversion of Hydrocarbon Wastes into Useful Fuels and Chemicals. <i>Environmental Science &amp; Technology</i> , 2021, 55, 6239-6247.	4.6	34
21	Rücktitelbild: Magnetic-Field-Stimulated Efficient Photocatalytic N <sub>2</sub> Fixation over Defective BaTiO <sub>3</sub> Perovskites ( <i>Angew. Chem.</i> 21/2021). <i>Angewandte Chemie</i> , 2021, 133, 12252-12252.	1.6	1
22	Magnetic-Field-Stimulated Efficient Photocatalytic N <sub>2</sub> Fixation over Defective BaTiO <sub>3</sub> Perovskites. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 11910-11918.	7.2	119
23	Establishing the Preferential Adsorption of Anion-Dominated Solvation Structures in the Electrolytes for High-Energy-Density Lithium Metal Batteries. <i>Advanced Functional Materials</i> , 2021, 31, 2011109.	7.8	37
24	Evolution of atomic-scale dispersion of FeNx in hierarchically porous 3D air electrode to boost the interfacial electrocatalysis of oxygen reduction in PEMFC. <i>Nano Energy</i> , 2021, 83, 105734.	8.2	41
25	Electrolyte Design for Lithium Metal Anode-Based Batteries Toward Extreme Temperature Application. <i>Advanced Science</i> , 2021, 8, e2101051.	5.6	95
26	Reusable Polyacrylonitrile-Sulfur Extractor of Heavy Metal Ions from Wastewater. <i>Advanced Functional Materials</i> , 2021, 31, 2105845.	7.8	20
27	Stabilizing electrode-electrolyte interfaces to realize high-voltage Li  LiCoO <sub>2</sub> batteries by a sulfonamide-based electrolyte. <i>Energy and Environmental Science</i> , 2021, 14, 6030-6040.	15.6	84
28	Reusable Polyacrylonitrile-Sulfur Extractor of Heavy Metal Ions from Wastewater ( <i>Adv. Funct. Mater.</i> )	7.8	5
29	Pressureless two-step sintering of ultrafine-grained tungsten. <i>Acta Materialia</i> , 2020, 186, 116-123.	3.8	48
30	FSI-inspired solvent and full fluorosulfonyl electrolyte for 4 V class lithium-metal batteries. <i>Energy and Environmental Science</i> , 2020, 13, 212-220.	15.6	198
31	Superconducting Cu/Nb nanolaminate by coded accumulative roll bonding and its helium damage characteristics. <i>Acta Materialia</i> , 2020, 197, 212-223.	3.8	41
32	d-Orbital steered active sites through ligand editing on heterometal imidazole frameworks for rechargeable zinc-air battery. <i>Nature Communications</i> , 2020, 11, 5858.	5.8	109
33	Deep-Breathing Honeycomb-like Co-Nx-C Nanopolyhedron Bifunctional Oxygen Electrocatalysts for Rechargeable Zn-Air Batteries. <i>IScience</i> , 2020, 23, 101404.	1.9	38
34	A Combined Ordered Macro-Mesoporous Architecture Design and Surface Engineering Strategy for High-Performance Sulfur Immobilizer in Lithium-Sulfur Batteries. <i>Small</i> , 2020, 16, e2001089.	5.2	43
35	Stabilized Co-Free Li-Rich Oxide Cathode Particles with An Artificial Surface Preconstruction. <i>Advanced Energy Materials</i> , 2020, 10, 2001120.	10.2	74
36	Mechanical properties and thermal shock resistance of tungsten alloys strengthened by laser fragmentation-processed zirconium carbide nanoparticles. <i>Tungsten</i> , 2020, 2, 381-389.	2.0	8

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37	A Surface Se <sup>2+</sup> -Substituted LiCo[O <sub>2</sub> ·xSe] Cathode with Ultrastable High-Voltage Cycling in Pouch Full-Cells. <i>Advanced Materials</i> , 2020, 32, e2005182.	11.1	110
38	Gradient-morph LiCoO <sub>2</sub> single crystals with stabilized energy density above 3400 Wh L <sup>-1</sup> . <i>Energy and Environmental Science</i> , 2020, 13, 1865-1878.	15.6	118
39	Graphene Quantum Dots-Based Advanced Electrode Materials: Design, Synthesis and Their Applications in Electrochemical Energy Storage and Electrocatalysis. <i>Advanced Energy Materials</i> , 2020, 10, 2001275.	10.2	109
40	Revealing the Rapid Electrocatalytic Behavior of Ultrafine Amorphous Defective Nb <sub>2</sub> O <sub>5</sub> Nanocluster toward Superior Li-S Performance. <i>ACS Nano</i> , 2020, 14, 4849-4860.	7.3	201
41	Effects of annealing temperature and layer thickness on hardening behavior in cross accumulative roll bonded Cu/Fe nanolamellar composite. <i>Journal of Alloys and Compounds</i> , 2020, 827, 154312.	2.8	23
42	Helium desorption behavior and growth mechanism of helium bubbles in FeCrNi film. <i>Nuclear Materials and Energy</i> , 2019, 21, 100710.	0.6	3
43	Effects of ZrC content on the mechanical properties and microstructures of hot-rolled W-ZrC composites. <i>Nuclear Materials and Energy</i> , 2019, 20, 100705.	0.6	4
44	Tailoring Oxygen Vacancies of BiVO <sub>4</sub> toward Highly Efficient Noble-Metal-Free Electrocatalyst for Artificial N <sub>2</sub> Fixation under Ambient Conditions. <i>Small Methods</i> , 2019, 3, 1800333.	4.6	84
45	High-temperature order-disorder phase transition in Fe-18Ga alloy evaluated by internal friction method. <i>Journal of Alloys and Compounds</i> , 2018, 750, 669-676.	2.8	30
46	He irradiation effects in bulk Cu/V nanolayered composites fabricated by cross accumulative roll bonding. <i>Journal of Nuclear Materials</i> , 2018, 508, 354-360.	1.3	15
47	The effect of Zr, Ti addition on the particle size and microstructure evolution of yttria nanoparticle in ODS steel. <i>Powder Technology</i> , 2017, 319, 172-182.	2.1	29
48	Microstructure, hardness and defect structure of the He irradiated ODS ferritic steel. <i>Journal of Alloys and Compounds</i> , 2017, 691, 653-658.	2.8	25
49	Effect of hot rolling and annealing on the mechanical properties and thermal conductivity of W-0.5wt.% TaC alloys. <i>International Journal of Refractory Metals and Hard Materials</i> , 2016, 56, 8-17.	1.7	48
50	Hot rolling and annealing effects on the microstructure and mechanical properties of ODS austenitic steel fabricated by electron beam selective melting. <i>Frontiers of Materials Science</i> , 2016, 10, 73-79.	1.1	6
51	High strength and thermal stability of bulk Cu/Ta nanolamellar multilayers fabricated by cross accumulative roll bonding. <i>Acta Materialia</i> , 2016, 110, 341-351.	3.8	160
52	Characterization of oxide dispersion strengthened ferritic steel fabricated by electron beam selective melting. <i>Materials and Design</i> , 2016, 89, 1171-1180.	3.3	33
53	Low-temperature mechanical and magnetic properties of the reduced activation martensitic steel. <i>Frontiers of Materials Science</i> , 2015, 9, 264-271.	1.1	2
54	Annealing effects on the microstructure and mechanical properties of hot-rolled 14Cr-ODS steel. <i>Journal of Nuclear Materials</i> , 2015, 465, 268-279.	1.3	11

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55	Annealing effect on the microstructure and magnetic properties of 14%Cr-ODS ferritic steel. <i>Fusion Engineering and Design</i> , 2015, 100, 371-377.	1.0	7
56	Effect of zirconium addition on the microstructure and mechanical properties of ODS ferritic steels containing aluminum. <i>Journal of Nuclear Materials</i> , 2014, 444, 462-468.	1.3	80
57	Corrosion resistance of W-Cr-C coatings fabricated by spark plasma sintering method. <i>Surface and Coatings Technology</i> , 2014, 254, 202-206.	2.2	10
58	Oxidation resistance in LBE and air and tensile properties of ODS ferritic steels containing Al/Zr elements. <i>Journal of Nuclear Materials</i> , 2014, 455, 407-411.	1.3	16
59	Development of 9Cr-ODS ferritic-martensitic steel prepared by chemical reduction and mechanical milling. <i>Journal of Alloys and Compounds</i> , 2014, 598, 243-247.	2.8	24
60	Nanorod-nanosheet hierarchically structured ZnO crystals on zinc foil as flexible photoanodes for dye-sensitized solar cells. <i>Nanoscale</i> , 2013, 5, 1894.	2.8	42
61	Properties and origins of high-performance poly(phenylene oxide)/cyanate ester resins for high-frequency copper-clad laminates. <i>Journal of Applied Polymer Science</i> , 2011, 121, 1675-1684.	1.3	36