

Jiarui He

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

100
papers

6,537
citations

49
h-index

80
g-index

106
ext. papers

7,981
ext. citations

9.9
avg, IF

6.75
L-index

#	Paper	IF	Citations
100	High-Performance Anode-Free LiS Batteries with an Integrated Li ₂ S Electrolyte Cathode. <i>ACS Energy Letters</i> , 2022 , 7, 583-590	20.1	5
99	Regulating Li uniform deposition by lithiophilic interlayer as Li-ion redistributor for highly stable lithium metal batteries. <i>Chemical Engineering Journal</i> , 2022 , 436, 134945	14.7	2
98	Fe ₃ N@N-doped graphene as a lithiophilic interlayer for highly stable lithium metal batteries. <i>Energy Storage Materials</i> , 2022 , 45, 656-666	19.4	7
97	Covalent Organic Framework as an Efficient Protection Layer for Stable Lithium-metal Anode.. <i>Angewandte Chemie - International Edition</i> , 2022 ,	16.4	5
96	Stable Dendrite-Free Sodium-Sulfur Batteries Enabled by a Localized High-Concentration Electrolyte. <i>Journal of the American Chemical Society</i> , 2021 , 143, 20241-20248	16.4	18
95	Lithiophilic MoN/MoN as multifunctional interlayer for dendrite-free and ultra-stable lithium metal batteries.. <i>Journal of Colloid and Interface Science</i> , 2021 , 612, 332-341	9.3	0
94	High-Energy-Density, Long-Life Lithium-Sulfur Batteries with Practically Necessary Parameters Enabled by Low-Cost Fe-Ni Nanoalloy Catalysts. <i>ACS Nano</i> , 2021 , 15, 8583-8591	16.7	24
93	Lithiophilic 3D VN@N-rGO as a Multifunctional Interlayer for Dendrite-Free and Ultrastable Lithium-Metal Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 20125-20136	9.5	14
92	In Situ Construction of Mo C Quantum Dots-Decorated CNT Networks as a Multifunctional Electrocatalyst for Advanced Lithium-Sulfur Batteries. <i>Small</i> , 2021 , 17, e2100460	11	34
91	Outstanding Catalytic Effects of 1T ₁ MoTe Quantum Dots@3D Graphene in Shuttle-Free Li-S Batteries. <i>ACS Nano</i> , 2021 ,	16.7	18
90	1T ₁ -ReS ₂ Nanosheets In Situ Grown on Carbon Nanotubes as a Highly Efficient Polysulfide Electrocatalyst for Stable LiS Batteries. <i>Advanced Energy Materials</i> , 2020 , 10, 2001017	21.8	80
89	Mo ₂ C quantum dots@graphene functionalized separator toward high-current-density lithium metal anodes for ultrastable Li-S batteries. <i>Chemical Engineering Journal</i> , 2020 , 399, 125837	14.7	51
88	Freestanding vanadium nitride nanowire membrane as an efficient, carbon-free gas diffusion cathode for LiCO ₂ batteries. <i>Energy Storage Materials</i> , 2020 , 31, 95-104	19.4	12
87	Lithium-Sulfur Batteries: Attaining the Critical Metrics. <i>Joule</i> , 2020 , 4, 285-291	27.8	261
86	1T-MoS ₂ nanotubes wrapped with N-doped graphene as highly-efficient absorbent and electrocatalyst for LiS batteries. <i>Journal of Power Sources</i> , 2020 , 447, 227364	8.9	64
85	Vertical V-Doped CoP Nanowall Arrays as a Highly Efficient and Stable Electrocatalyst for the Hydrogen Evolution Reaction at all pH Values. <i>ACS Applied Energy Materials</i> , 2020 , 3, 1027-1035	6.1	26
84	Long-Life, High-Rate LithiumSulfur Cells with a Carbon-Free VN Host as an Efficient Polysulfide Adsorbent and Lithium Dendrite Inhibitor. <i>Advanced Energy Materials</i> , 2020 , 10, 1903241	21.8	72

83	Functionally Modified Polyolefin-Based Separators for Lithium-Sulfur Batteries: Progress and Prospects. <i>Frontiers in Energy Research</i> , 2020 , 8,	3.8	2
82	3D CoSe@C Aerogel as a Host for Dendrite-Free Lithium-Metal Anode and Efficient Sulfur Cathode in LiS Full Cells. <i>Advanced Energy Materials</i> , 2020 , 10, 2002654	21.8	54
81	Molybdenum Boride as an Efficient Catalyst for Polysulfide Redox to Enable High-Energy-Density Lithium-Sulfur Batteries. <i>Advanced Materials</i> , 2020 , 32, e2004741	24	77
80	The Formation, Detriment and Solution of Residual Lithium Compounds on Ni-Rich Layered Oxides in Lithium-Ion Batteries. <i>Frontiers in Energy Research</i> , 2020 , 8,	3.8	8
79	Freestanding 1T MoS ₂ /graphene heterostructures as a highly efficient electrocatalyst for lithium polysulfides in LiS batteries. <i>Energy and Environmental Science</i> , 2019 , 12, 344-350	35.4	355
78	A review on the status and challenges of electrocatalysts in lithium-sulfur batteries. <i>Energy Storage Materials</i> , 2019 , 20, 55-70	19.4	226
77	Three-dimensional Fe ₃ O ₄ /N-graphene sponge as an efficient organosulfide host for high-performance lithium-organosulfur batteries. <i>Energy Storage Materials</i> , 2019 , 23, 88-94	19.4	23
76	Metal Sulfide-Decorated Carbon Sponge as a Highly Efficient Electrocatalyst and Absorbant for Polysulfide in High-Loading Li ₂ S Batteries. <i>Advanced Energy Materials</i> , 2019 , 9, 1900584	21.8	147
75	NiSe ₂ nanocrystals anchored graphene nanosheets as highly efficient and stable electrocatalyst for hydrogen evolution reaction in alkaline medium. <i>Journal of Alloys and Compounds</i> , 2019 , 792, 789-796	5.7	35
74	CoSe ₂ nanoparticles embedded MOF-derived Co-N-C nanoflake arrays as efficient and stable electrocatalyst for hydrogen evolution reaction. <i>Applied Catalysis B: Environmental</i> , 2019 , 258, 117996	21.8	95
73	Efficient Li ₂ O ₂ Batteries with Molybdenum Disulfide Nanosheets on Carbon Nanotubes as a Catalyst. <i>ACS Applied Energy Materials</i> , 2019 , 2, 8685-8694	6.1	19
72	Hierarchical MoSe ₂ -CoSe ₂ nanotubes anchored on graphene nanosheets: A highly efficient and stable electrocatalyst for hydrogen evolution in alkaline medium. <i>Electrochimica Acta</i> , 2019 , 299, 197-205	6.7	47
71	Mo ₂ C Nanodots Anchored on N-Doped Porous CNT Microspheres as Electrode for Efficient Li-Ion Storage. <i>Small Methods</i> , 2019 , 3, 1800287	12.8	53
70	Modification of chitosan/calcium alginate/FeO hydrogel microsphere for enhancement of Cu(II) adsorption. <i>Environmental Science and Pollution Research</i> , 2018 , 25, 3922-3932	5.1	5
69	Preparation of a novel polyacrylic acid and chitosan interpenetrating network hydrogel for removal of U(vi) from aqueous solutions.. <i>RSC Advances</i> , 2018 , 8, 12684-12691	3.7	17
68	Graphene oxide encapsulated polyvinyl alcohol/sodium alginate hydrogel microspheres for Cu (II) and U (VI) removal. <i>Ecotoxicology and Environmental Safety</i> , 2018 , 158, 309-318	7	96
67	Direct impregnation of SeS ₂ into a MOF-derived 3D nanoporous Co ₃ (CO) ₃ architecture towards superior rechargeable lithium batteries. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 10466-10473	13	101
66	Encapsulating FeO into calcium alginate coated chitosan hydrochloride hydrogel beads for removal of Cu (II) and U (VI) from aqueous solutions. <i>Ecotoxicology and Environmental Safety</i> , 2018 , 147, 699-707	7	49

65	Encapsulating nanosilica into polyacrylic acid and chitosan interpenetrating network hydrogel for pre-concentration of uranium from aqueous solutions. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2018 , 317, 1299-1309	1.5	14
64	Graphene wrapped self-assembled Ni _{0.85} Se-SnO ₂ microspheres as highly efficient and stable electrocatalyst for hydrogen evolution reaction. <i>Electrochimica Acta</i> , 2018 , 283, 1146-1153	6.7	15
63	Few-layered WSe ₂ in-situ grown on graphene nanosheets as efficient anode for lithium-ion batteries. <i>Electrochimica Acta</i> , 2018 , 283, 1660-1667	6.7	33
62	Vertical Co ₉ S ₈ hollow nanowall arrays grown on a Celgard separator as a multifunctional polysulfide barrier for high-performance LiS batteries. <i>Energy and Environmental Science</i> , 2018 , 11, 2560-2568	35.4	365
61	A Single-Step Hydrothermal Route to 3D Hierarchical Cu ₂ O/CuO/rGO Nanosheets as High-Performance Anode of Lithium-Ion Batteries. <i>Small</i> , 2018 , 14, 1702667	11	68
60	One-pot synthesis of graphene-wrapped NiSe ₂ -Ni _{0.85} Se hollow microspheres as superior and stable electrocatalyst for hydrogen evolution reaction. <i>Electrochimica Acta</i> , 2018 , 291, 242-248	6.7	20
59	MOF-derived Cobalt Sulfide Grown on 3D Graphene Foam as an Efficient Sulfur Host for Long-Life Lithium-Sulfur Batteries. <i>IScience</i> , 2018 , 4, 36-43	6.1	117
58	Few-layered ReS ₂ nanosheets grown on carbon nanotubes: A highly efficient anode for high-performance lithium-ion batteries. <i>Chemical Engineering Journal</i> , 2017 , 315, 10-17	14.7	89
57	Enhanced photocatalytic properties of graphene modified few-layered WSe ₂ nanosheets. <i>Applied Surface Science</i> , 2017 , 400, 420-425	6.7	51
56	Self-assembled CoSe ₂ nanocrystals embedded into carbon nanowires as highly efficient catalyst for hydrogen evolution reaction. <i>Electrochimica Acta</i> , 2017 , 231, 626-631	6.7	79
55	Three-dimensional structure of WS ₂ /graphene/Ni as a binder-free electrocatalytic electrode for highly effective and stable hydrogen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 7811-7819	6.7	68
54	Self-Assembled Coral-like Hierarchical Architecture Constructed by NiSe Nanocrystals with Comparable Hydrogen-Evolution Performance of Precious Platinum Catalyst. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 7154-7159	9.5	128
53	Significant enhancement of photocatalytic activity of multi-walled carbon nanotubes modified WSe ₂ composite. <i>Materials Letters</i> , 2017 , 197, 67-70	3.3	19
52	Hierarchical architecture of ReS ₂ /rGO composites with enhanced electrochemical properties for lithium-ion batteries. <i>Applied Surface Science</i> , 2017 , 413, 123-128	6.7	53
51	Self-assembled interwoven CoS ₂ /CNTs/graphene architecture as anode for high-performance lithium ion batteries. <i>Journal of Alloys and Compounds</i> , 2017 , 708, 1178-1183	5.7	51
50	Self-assembled chrysanthemum-like microspheres constructed by few-layer ReSe ₂ nanosheets as a highly efficient and stable electrocatalyst for hydrogen evolution reaction. <i>Electrochimica Acta</i> , 2017 , 224, 593-599	6.7	85
49	Self-assembled cauliflower-like FeS ₂ anchored into graphene foam as free-standing anode for high-performance lithium-ion batteries. <i>Carbon</i> , 2017 , 114, 111-116	10.4	93
48	A critical look into effects of electrode pore morphology in solid oxide fuel cells. <i>AIChE Journal</i> , 2017 , 63, 2312-2317	3.6	7

47	Facile electrophoretic deposition of functionalized Bi ₂ O ₃ nanoparticles. <i>Materials and Design</i> , 2017 , 116, 359-364	8.1	11
46	Modeling alveolar injury using microfluidic co-cultures for monitoring bleomycin-induced epithelial/fibroblastic cross-talk disorder. <i>RSC Advances</i> , 2017 , 7, 42738-42749	3.7	7
45	Partially reduced graphene oxide based FRET on fiber optic interferometer for biochemical detection 2017 ,		1
44	Tellurium-Impregnated Porous Cobalt-Doped Carbon Polyhedra as Superior Cathodes for Lithium-Tellurium Batteries. <i>ACS Nano</i> , 2017 , 11, 8144-8152	16.7	99
43	Yolk-Shelled C@Fe ₃ O ₄ Nanoboxes as Efficient Sulfur Hosts for High-Performance Lithium-Sulfur Batteries. <i>Advanced Materials</i> , 2017 , 29, 1702707	24	370
42	Three-dimensional hierarchical C-Co-N/Se derived from metal-organic framework as superior cathode for Li-Se batteries. <i>Journal of Power Sources</i> , 2017 , 363, 103-109	8.9	64
41	In-situ Selenization of Co-based Metal-Organic Frameworks as a Highly Efficient Electrocatalyst for Hydrogen Evolution Reaction. <i>Electrochimica Acta</i> , 2017 , 247, 258-264	6.7	79
40	3D chrysanthemum-like ReS ₂ microspheres composed of curly few-layered nanosheets with enhanced electrochemical properties for lithium-ion batteries. <i>Journal of Materials Science</i> , 2017 , 52, 3622-3629	4.3	38
39	Carbon Nanotube Modified V ₂ O ₅ Porous Microspheres as Cathodes for High-Performance Lithium-Ion Batteries. <i>Energy Technology</i> , 2017 , 5, 665-669	3.5	11
38	Graphene-like WSe ₂ nanosheets for efficient and stable hydrogen evolution. <i>Journal of Alloys and Compounds</i> , 2017 , 691, 698-704	5.7	119
37	Three-Dimensional Hierarchical Reduced Graphene Oxide/Tellurium Nanowires: A High-Performance Freestanding Cathode for Li-Te Batteries. <i>ACS Nano</i> , 2016 , 10, 8837-42	16.7	164
36	Three-dimensional hierarchically structured aerogels constructed with layered MoS ₂ /graphene nanosheets as free-standing anodes for high-performance lithium ion batteries. <i>Electrochimica Acta</i> , 2016 , 215, 12-18	6.7	112
35	Few-layered WSe ₂ nanoflowers anchored on graphene nanosheets: a highly efficient and stable electrocatalyst for hydrogen evolution. <i>Electrochimica Acta</i> , 2016 , 222, 1293-1299	6.7	93
34	Interwoven WSe ₂ /CNTs hybrid network: A highly efficient and stable electrocatalyst for hydrogen evolution. <i>Electrochemistry Communications</i> , 2016 , 72, 74-78	5.1	102
33	Pomegranate-Like Silicon/Nitrogen-doped Graphene Microspheres as Superior-Capacity Anode for Lithium-Ion Batteries. <i>Electrochimica Acta</i> , 2016 , 215, 667-673	6.7	64
32	Partially reduced graphene oxide based FRET on fiber-optic interferometer for biochemical detection. <i>Scientific Reports</i> , 2016 , 6, 23706	4.9	27
31	Three-dimensional VS ₄ /graphene hierarchical architecture as high-capacity anode for lithium-ion batteries. <i>Journal of Alloys and Compounds</i> , 2016 , 685, 294-299	5.7	56
30	Synthesis of silicon-doped reduced graphene oxide and its applications in dye-sensitive solar cells and supercapacitors. <i>RSC Advances</i> , 2016 , 6, 15080-15086	3.7	38

29	Flexible terahertz modulator based on coplanar-gate graphene field-effect transistor structure. <i>Optics Letters</i> , 2016 , 41, 816-9	3	27
28	Graphene field effect transistor-based terahertz modulator with small operating voltage and low insertion loss. <i>Chinese Optics Letters</i> , 2016 , 14, 052301-52305	2.2	4
27	From Metal-Organic Framework to LiS@C-Co-N Nanoporous Architecture: A High-Capacity Cathode for Lithium-Sulfur Batteries. <i>ACS Nano</i> , 2016 , 10, 10981-10987	16.7	241
26	Wrinkled sulfur@graphene microspheres with high sulfur loading as superior-capacity cathode for LiS batteries. <i>Materials Today Energy</i> , 2016 , 1-2, 11-16	7	35
25	Three-Dimensional Hierarchical [email[protected]]: A Highly Efficient Freestanding Cathode for LiBe Batteries. <i>ACS Energy Letters</i> , 2016 , 1, 16-20	20.1	145
24	Three-Dimensional CNT/GrapheneLi2S Aerogel as Freestanding Cathode for High-Performance LiS Batteries. <i>ACS Energy Letters</i> , 2016 , 1, 820-826	20.1	133
23	Modulation of N-bonding configurations and their influence on the electrical properties of nitrogen-doped graphene. <i>RSC Advances</i> , 2016 , 6, 92682-92687	3.7	9
22	Highly-flexible 3D Li2S/graphene cathode for high-performance lithium sulfur batteries. <i>Journal of Power Sources</i> , 2016 , 327, 474-480	8.9	104
21	Three-dimensional CNT/grapheneSulfur hybrid sponges with high sulfur loading as superior-capacity cathodes for lithiumSulfur batteries. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 18605-18610	12.1	182
20	An integrated microfluidic chip for the detection of bacteria - A proof of concept. <i>Molecular and Cellular Probes</i> , 2015 , 29, 223-7	3.3	8
19	Enhanced thermal and electrochemical properties of PVDF-HFP/PMMA polymer electrolyte by TiO2 nanoparticles. <i>Solid State Ionics</i> , 2015 , 282, 31-36	3.3	49
18	Self-assembled CoS2 nanoparticles wrapped by CoS2-quantum-dots-anchored graphene nanosheets as superior-capability anode for lithium-ion batteries. <i>Electrochimica Acta</i> , 2015 , 182, 424-429	6.7	111
17	Facile fabrication of RGO wrapped LiMn2O4 nanorods as a cathode with enhanced specific capacity. <i>RSC Advances</i> , 2015 , 5, 80063-80068	3.7	28
16	Three-dimensional CoS2/RGO hierarchical architecture as superior-capability anode for lithium ion batteries. <i>RSC Advances</i> , 2015 , 5, 71790-71795	3.7	39
15	Observation of tunable electrical bandgap in large-area twisted bilayer graphene synthesized by chemical vapor deposition. <i>Scientific Reports</i> , 2015 , 5, 15285	4.9	32
14	Effect of hydrogen on the growth of MoS2 thin layers by thermal decomposition method. <i>Vacuum</i> , 2015 , 119, 204-208	3.7	23
13	Enhanced Performance of Lithium Sulfur Battery with a Reduced Graphene Oxide Coating Separator. <i>Journal of the Electrochemical Society</i> , 2015 , 162, A1624-A1629	3.9	57
12	The green synthesis of reduced graphene oxide by the ethanol-thermal reaction and its electrical properties. <i>Materials Letters</i> , 2014 , 116, 416-419	3.3	31

11	Phosphorus-doped reduced graphene oxide as an electrocatalyst counter electrode in dye-sensitized solar cells. <i>Journal of Power Sources</i> , 2014 , 263, 246-251	8.9	93
10	Synthesis and electrochemical properties of graphene-modified LiCo _{1/3} Ni _{1/3} Mn _{1/3} O ₂ cathodes for lithium ion batteries. <i>RSC Advances</i> , 2014 , 4, 2568-2572	3.7	64
9	Large-area synthesis of high-quality and uniform monolayer graphene without unexpected bilayer regions. <i>Journal of Alloys and Compounds</i> , 2014 , 615, 415-418	5.7	24
8	Pure thiophene-sulfur doped reduced graphene oxide: synthesis, structure, and electrical properties. <i>Nanoscale</i> , 2014 , 6, 7281-7	7.7	105
7	Significant photoelectrical response of epitaxial graphene grown on Si-terminated 6H-SiC. <i>Chinese Physics B</i> , 2013 , 22, 076804	1.2	2
6	Functional investigation of NCI-H460-inducible myofibroblasts on the chemoresistance to VP-16 with a microfluidic 3D co-culture device. <i>PLoS ONE</i> , 2013 , 8, e61754	3.7	13
5	Study on invadopodia formation for lung carcinoma invasion with a microfluidic 3D culture device. <i>PLoS ONE</i> , 2013 , 8, e56448	3.7	40
4	Low platinum loading PtNPs/graphene composite catalyst with high electrocatalytic activity for dye-sensitized solar cells. <i>Chinese Physics B</i> , 2012 , 21, 118101	1.2	12
3	Temperature dependence of the thickness and morphology of epitaxial graphene grown on SiC (0001) wafers. <i>Chinese Physics B</i> , 2012 , 21, 046801	1.2	5
2	In Situ Grown 1T'-MoTe ₂ Nanosheets on Carbon Nanotubes as an Efficient Electrocatalyst and Lithium Regulator for Stable Lithium-Sulfur Full Cells. <i>Advanced Energy Materials</i> , 2103204	21.8	6
1	A Self-Healable Sulfide/Polymer Composite Electrolyte for Long-Life, Low-Lithium-Excess Lithium-Metal Batteries. <i>Advanced Functional Materials</i> , 2106680	15.6	2