

Xiaolei Wang

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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.

66 papers	4,372 citations	35 h-index	66 g-index
72 ext. papers	5,015 ext. citations	12.6 avg, IF	5.7 L-index

#	Paper	IF	Citations
66	Design and Synthesis of Hierarchical Nanowire Composites for Electrochemical Energy Storage. <i>Advanced Functional Materials</i> , 2009 , 19, 3420-3426	15.6	405
65	Structural and chemical synergistic encapsulation of polysulfides enables ultralong-life lithium-sulfur batteries. <i>Energy and Environmental Science</i> , 2016 , 9, 2533-2538	35.4	300
64	High-Performance Supercapacitors Based on Nanocomposites of Nb ₂ O ₅ Nanocrystals and Carbon Nanotubes. <i>Advanced Energy Materials</i> , 2011 , 1, 1089-1093	21.8	285
63	Pomegranate-Inspired Design of Highly Active and Durable Bifunctional Electrocatalysts for Rechargeable Metal-Air Batteries. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 4977-82	16.4	218
62	Chemisorption of polysulfides through redox reactions with organic molecules for lithium-sulfur batteries. <i>Nature Communications</i> , 2018 , 9, 705	17.4	159
61	Building robust architectures of carbon and metal oxide nanocrystals toward high-performance anodes for lithium-ion batteries. <i>ACS Nano</i> , 2012 , 6, 9911-9	16.7	159
60	Sulfur Atoms Bridging Few-Layered MoS ₂ with S-Doped Graphene Enable Highly Robust Anode for Lithium-Ion Batteries. <i>Advanced Energy Materials</i> , 2015 , 5, 1501106	21.8	152
59	Sulfur covalently bonded graphene with large capacity and high rate for high-performance sodium-ion batteries anodes. <i>Nano Energy</i> , 2015 , 15, 746-754	17.1	144
58	High-performance flexible lithium-ion electrodes based on robust network architecture. <i>Energy and Environmental Science</i> , 2012 , 5, 6845	35.4	137
57	Evidence of covalent synergy in silicon-sulfur-graphene yielding highly efficient and long-life lithium-ion batteries. <i>Nature Communications</i> , 2015 , 6, 8597	17.4	133
56	Two-Dimensional Phosphorus-Doped Carbon Nanosheets with Tunable Porosity for Oxygen Reactions in Zinc-Air Batteries. <i>ACS Catalysis</i> , 2018 , 8, 2464-2472	13.1	129
55	Implementing an in-situ carbon network in Si/reduced graphene oxide for high performance lithium-ion battery anodes. <i>Nano Energy</i> , 2016 , 19, 187-197	17.1	124
54	3D nanocomposite architectures from carbon-nanotube-threaded nanocrystals for high-performance electrochemical energy storage. <i>Advanced Materials</i> , 2014 , 26, 339-45	24	119
53	Enhanced Reversible Sodium-Ion Intercalation by Synergistic Coupling of Few-Layered MoS ₂ and S-Doped Graphene. <i>Advanced Functional Materials</i> , 2017 , 27, 1702562	15.6	116
52	High-performance energy-storage architectures from carbon nanotubes and nanocrystal building blocks. <i>Advanced Materials</i> , 2012 , 24, 2030-6	24	109
51	Alloyed semiconductor nanocrystals with broad tunable band gaps. <i>Chemical Communications</i> , 2009 , 4221-3	5.8	105
50	Synthesis of Quaternary Semiconductor Nanocrystals with Tunable Band Gaps. <i>Chemistry of Materials</i> , 2009 , 21, 2489-2493	9.6	98

49	Microwave-assisted pyrolysis of sewage sludge: A review. <i>Fuel Processing Technology</i> , 2019 , 187, 84-104	7.2	95
48	Gas Pickering Emulsion Templated Hollow Carbon for High Rate Performance Lithium Sulfur Batteries. <i>Advanced Functional Materials</i> , 2016 , 26, 8408-8417	15.6	90
47	Carbon-Coated Silicon Nanowires on Carbon Fabric as Self-Supported Electrodes for Flexible Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 9551-9558	9.5	81
46	3D N-doped hybrid architectures assembled from 0D T-Nb ₂ O ₅ embedded in carbon microtubes toward high-rate Li-ion capacitors. <i>Nano Energy</i> , 2019 , 56, 118-126	17.1	81
45	Tuning Shell Numbers of Transition Metal Oxide Hollow Microspheres toward Durable and Superior Lithium Storage. <i>ACS Nano</i> , 2017 , 11, 11521-11530	16.7	72
44	Flexible, three-dimensional ordered macroporous TiO ₂ electrode with enhanced electrode-electrolyte interaction in high-power Li-ion batteries. <i>Nano Energy</i> , 2016 , 24, 72-77	17.1	71
43	High-performance flexible electrode based on electrodeposition of polypyrrole/MnO ₂ on carbon cloth for supercapacitors. <i>Journal of Power Sources</i> , 2016 , 326, 357-364	8.9	65
42	A Lithium-Sulfur Battery using a 2D Current Collector Architecture with a Large-Sized Sulfur Host Operated under High Areal Loading and Low E/S Ratio. <i>Advanced Materials</i> , 2018 , 30, e1804271	24	61
41	Sulfur Nanogranular Film-Coated Three-Dimensional Graphene Sponge-Based High Power Lithium Sulfur Battery. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 1984-91	9.5	60
40	Nb ₂ O ₅ -carbon core-shell nanocomposite as anode material for lithium ion battery. <i>Journal of Energy Chemistry</i> , 2013 , 22, 357-362	12	55
39	Bifunctionally active and durable hierarchically porous transition metal-based hybrid electrocatalyst for rechargeable metal-air batteries. <i>Applied Catalysis B: Environmental</i> , 2018 , 239, 677-687	21.8	53
38	A General Synthesis of CuInS ₂ Based Multicomponent Solid-Solution Nanocrystals with Tunable Band Gap, Size, and Structure. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 17293-17297	3.8	53
37	Highly Active and Durable Nanocrystal-Decorated Bifunctional Electrocatalyst for Rechargeable Zinc-Air Batteries. <i>ChemSusChem</i> , 2015 , 8, 3129-38	8.3	51
36	Highly Oriented Graphene Sponge Electrode for Ultra High Energy Density Lithium Ion Hybrid Capacitors. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 25297-305	9.5	50
35	Composites of MnO ₂ nanocrystals and partially graphitized hierarchically porous carbon spheres with improved rate capability for high-performance supercapacitors. <i>Carbon</i> , 2015 , 93, 258-265	10.4	47
34	Fast lithium-ion storage of Nb ₂ O ₅ nanocrystals in situ grown on carbon nanotubes for high-performance asymmetric supercapacitors. <i>RSC Advances</i> , 2015 , 5, 41179-41185	3.7	46
33	Building sponge-like robust architectures of CNT/graphene/Bi composites with enhanced rate and cycling performance for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 3962-3967	13	44
32	Compact high volumetric and areal capacity lithium sulfur batteries through rock salt induced nano-architected sulfur hosts. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 21435-21441	13	40

31	Vanadium Pentoxide Nanorods Anchored to and Wrapped with Graphene Nanosheets for High-Power Asymmetric Supercapacitors. <i>ChemElectroChem</i> , 2015 , 2, 1264-1269	4.3	29
30	Realizing high-performance lithium-sulfur batteries via rational design and engineering strategies. <i>Nano Energy</i> , 2021 , 82, 105761	17.1	29
29	3D Hierarchical Carbon-Rich Micro-/Nanomaterials for Energy Storage and Catalysis. <i>Electrochemical Energy Reviews</i> , 2021 , 4, 269-335	29.3	27
28	Tetragonal VNb ₉ O ₂₄ -based nanorods: a novel form of lithium battery anode with superior cyclability. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 12409	13	25
27	Bimetallic CoNi Alloy Nanoparticles Embedded in Pomegranate-like Nitrogen-Doped Carbon Spheres for Electrocatalytic Oxygen Reduction and Evolution. <i>ACS Applied Nano Materials</i> , 2020 , 3, 1354-1362	5.6	22
26	Design of ultralong single-crystal nanowire-based bifunctional electrodes for efficient oxygen and hydrogen evolution in a mild alkaline electrolyte. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 10895-10901	13	20
25	SnS grown on reduced graphene oxide and single-wall carbon nanotubes as electrode materials for high-power supercapacitors. <i>RSC Advances</i> , 2015 , 5, 27940-27945	3.7	19
24	Pomegranate-Inspired Design of Highly Active and Durable Bifunctional Electrocatalysts for Rechargeable Metal-Air Batteries. <i>Angewandte Chemie</i> , 2016 , 128, 5061-5066	3.6	19
23	Characterization of niobium and vanadium oxide nanocomposites with improved rate performance and cycling stability. <i>Electrochimica Acta</i> , 2013 , 102, 351-357	6.7	19
22	Hierarchical Chestnut-Burr Like Structure of Copper Cobalt Oxide Electrocatalyst Directly Grown on Ni Foam for Anion Exchange Membrane Water Electrolysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 2344-2349	8.3	18
21	Hierarchical Ni-Mo ₂ C/N-doped carbon Mott-Schottky array for water electrolysis. <i>Applied Catalysis B: Environmental</i> , 2021 , 292, 120168	21.8	17
20	Abundant Defects-Induced Interfaces Enabling Effective Anchoring for Polysulfides and Enhanced Kinetics in Lean Electrolyte Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 46767-46775	9.5	13
19	Bimetallic metal-organic framework derived doped carbon nanostructures as high-performance electrocatalyst towards oxygen reactions. <i>Nano Research</i> , 2021 , 14, 1533-1540	10	13
18	Better lithium-ion storage materials made through hierarchical assemblies of active nanorods and nanocrystals. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 17536-17544	13	12
17	Efficient Zn Metal Anode Enabled by O,N-Codoped Carbon Microflowers.. <i>Nano Letters</i> , 2022 ,	11.5	12
16	N, O-Codoped Carbon Nanosheet Array Enabling Stable Lithium Metal Anode. <i>Advanced Functional Materials</i> , 2021 , 31, 2102354	15.6	11
15	Flexible high performance lithium ion battery electrode based on a free-standing TiO ₂ nanocrystals/carbon cloth composite. <i>RSC Advances</i> , 2016 , 6, 35479-35485	3.7	11
14	Ultrafast, Durable, and High-loading Polymer Anode for Aqueous Zinc-Ion Batteries and Supercapacitors.. <i>Advanced Materials</i> , 2022 , e2200077	24	10

13	Hollow waxberry-like cobalt-nickel oxide/S,N-codoped carbon nanospheres as a trifunctional electrocatalyst for OER, ORR, and HER.. <i>RSC Advances</i> , 2020 , 10, 27788-27793	3.7	9
12	Strained lattice platinum-palladium alloy nanowires for efficient electrocatalysis. <i>Inorganic Chemistry Frontiers</i> , 2020 , 7, 1713-1718	6.8	6
11	Facile ball milling preparation of sulfur-doped carbon as peroxymonosulfate activator for efficient removal of organic pollutants. <i>Journal of Environmental Chemical Engineering</i> , 2021 , 9, 106536	6.8	5
10	Platinum-palladium alloy nanotetrahedra with tuneable lattice-strain for enhanced intrinsic activity. <i>Catalysis Science and Technology</i> , 2020 , 10, 6173-6179	5.5	5
9	Ultrafast, long-life, high-loading, and wide-temperature zinc ion supercapacitors. <i>Energy Storage Materials</i> , 2022 , 46, 233-242	19.4	4
8	Simultaneous shape and size measurements of irregular rough particles by an IPI system with double receivers. <i>Journal of Modern Optics</i> , 2019 , 66, 1226-1234	1.1	3
7	Enhanced polysulfide regulation via honeycomb-like carbon with catalytic MoC for lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> ,	13	3
6	Hetero-architected core-shell NiMoO@NiS/MoS nanorods enabling high-performance supercapacitors.. <i>Journal of Materials Research</i> , 2022 , 37, 284-293	2.5	1
5	Batteries: Gas Pickering Emulsion Templated Hollow Carbon for High Rate Performance Lithium Sulfur Batteries (Adv. Funct. Mater. 46/2016). <i>Advanced Functional Materials</i> , 2016 , 26, 8563-8563	15.6	1
4	Mechanism investigation of enhanced electrochemical H ₂ O ₂ production performance on oxygen-rich hollow porous carbon spheres. <i>Nano Research</i> , 1	10	0
3	Building Ni ₉ S ₈ /MoS ₂ Nanosheets Decorated NiMoO ₄ Nanorods Heterostructure for Enhanced Water Splitting. <i>Advanced Materials Interfaces</i> , 2021 , 8, 2101483	4.6	0
2	Vanadium Pentoxide Nanorods Anchored to and Wrapped with Graphene Nanosheets for High-Power Asymmetric Supercapacitors. <i>ChemElectroChem</i> , 2015 , 2, 1210-1210	4.3	
1	N,S-Codoped hollow carbon dodecahedron/sulfides composites enabling high-performance lithium-ion intercalation. <i>Electrochemical Science Advances</i> , 2021 , 1, e2100001		