

# Yun-Xiao Wang

## List of Publications by Year in descending order

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104  
papers

9,016  
citations

36203

51  
h-index

42291

92  
g-index

105  
all docs

105  
docs citations

105  
times ranked

8852  
citing authors

#	ARTICLE	IF	CITATIONS
1	Reduced graphene oxide with superior cycling stability and rate capability for sodium storage. Carbon, 2013, 57, 202-208.	5.4	491
2	Uniform yolk-shell iron sulfide@carbon nanospheres for superior sodium-iron sulfide batteries. Nature Communications, 2015, 6, 8689.	5.8	374
3	Amorphous TiO <sub>2</sub> Shells: A Vital Elastic Buffering Layer on Silicon Nanoparticles for High-Performance and Safe Lithium Storage. Advanced Materials, 2017, 29, 1700523.	11.1	342
4	Atomic cobalt as an efficient electrocatalyst in sulfur cathodes for superior room-temperature sodium-sulfur batteries. Nature Communications, 2018, 9, 4082.	5.8	305
5	Ultrafine SnO <sub>2</sub> nanoparticle loading onto reduced graphene oxide as anodes for sodium-ion batteries with superior rate and cycling performances. Journal of Materials Chemistry A, 2014, 2, 529-534.	5.2	297
6	Hard Carbon Anodes: Fundamental Understanding and Commercial Perspectives for Na-ion Batteries beyond Li-ion and K-ion Counterparts. Advanced Energy Materials, 2021, 11, .	10.2	282
7	Achieving High-Performance Room-Temperature Sodium-Sulfur Batteries With S@Interconnected Mesoporous Carbon Hollow Nanospheres. Journal of the American Chemical Society, 2016, 138, 16576-16579.	6.6	280
8	Room-Temperature Sodium-Sulfur Batteries: A Comprehensive Review on Research Progress and Cell Chemistry. Advanced Energy Materials, 2017, 7, 1602829.	10.2	270
9	Yolk-shell silicon-mesoporous carbon anode with compact solid electrolyte interphase film for superior lithium-ion batteries. Nano Energy, 2015, 18, 133-142.	8.2	238
10	Silicon/Mesoporous Carbon/Crystalline TiO <sub>2</sub> Nanoparticles for Highly Stable Lithium Storage. ACS Nano, 2016, 10, 10524-10532.	7.3	230
11	General Electron-Assisted Strategy for Ir, Pt, Ru, Pd, Fe, Ni Single-Atom Electrocatalysts with Bifunctional Active Sites for Highly Efficient Water Splitting. Angewandte Chemie - International Edition, 2019, 58, 11868-11873.	7.2	229
12	Engineering the Distribution of Carbon in Silicon Oxide Nanospheres at the Atomic Level for Highly Stable Anodes. Angewandte Chemie - International Edition, 2019, 58, 6669-6673.	7.2	209
13	Critical thickness of phenolic resin-based carbon interfacial layer for improving long cycling stability of silicon nanoparticle anodes. Nano Energy, 2016, 27, 255-264.	8.2	204
14	Facile synthesis of a interleaved expanded graphite-embedded sulphur nanocomposite as cathode of Li-S batteries with excellent lithium storage performance. Journal of Materials Chemistry, 2012, 22, 4744.	6.7	195
15	High-Performance Sodium-Ion Batteries and Sodium-Ion Pseudocapacitors Based on MoS <sub>2</sub> /Graphene Composites. Chemistry - A European Journal, 2014, 20, 9607-9612.	1.7	192
16	Long-Life Room-Temperature Sodium-Sulfur Batteries by Virtue of Transition-Metal-Nanocluster-Sulfur Interactions. Angewandte Chemie - International Edition, 2019, 58, 1484-1488.	7.2	165
17	High-performance room-temperature sodium-sulfur battery enabled by electrocatalytic sodium polysulfides full conversion. Energy and Environmental Science, 2020, 13, 562-570.	15.6	163
18	Nickel sulfide nanocrystals on nitrogen-doped porous carbon nanotubes with high-efficiency electrocatalysis for room-temperature sodium-sulfur batteries. Nature Communications, 2019, 10, 4793.	5.8	147

#	ARTICLE	IF	CITATIONS
19	Thickness-independent scalable high-performance Li-S batteries with high areal sulfur loading via electron-enriched carbon framework. <i>Nature Communications</i> , 2021, 12, 4519.	5.8	139
20	Atomic-Local Environments of Single-Atom Catalysts: Synthesis, Electronic Structure, and Activity. <i>Advanced Energy Materials</i> , 2019, 9, 1900722.	10.2	128
21	A High-Kinetics Sulfur Cathode with a Highly Efficient Mechanism for Superior Room-Temperature Na-S Batteries. <i>Advanced Materials</i> , 2020, 32, e1906700.	11.1	126
22	Rapid synthesis of $\text{Fe}_2\text{O}_3/\text{rGO}$ nanocomposites by microwave autoclave as superior anodes for sodium-ion batteries. <i>Journal of Power Sources</i> , 2015, 280, 107-113.	4.0	123
23	A Comprehensive Review on Controlling Surface Composition of Pt-Based Bimetallic Electrocatalysts. <i>Advanced Energy Materials</i> , 2018, 8, 1703597.	10.2	123
24	Nanoconfined SnS in 3D interconnected macroporous carbon as durable anodes for lithium/sodium ion batteries. <i>Carbon</i> , 2018, 134, 222-231.	5.4	115
25	Developments and Perspectives on Emerging High-Energy-Density Sodium-Metal Batteries. <i>CheM</i> , 2019, 5, 2547-2570.	5.8	110
26	Reversible sodium storage via conversion reaction of a $\text{MoS}_2$ -C composite. <i>Chemical Communications</i> , 2014, 50, 10730-10733.	2.2	105
27	Electrocatalyzing S Cathodes via Multisulfiphilic Sites for Superior Room-Temperature Sodium-Sulfur Batteries. <i>ACS Nano</i> , 2020, 14, 7259-7268.	7.3	100
28	Fabrication of Superior Single-Atom Catalysts toward Diverse Electrochemical Reactions. <i>Small Methods</i> , 2019, 3, 1800497.	4.6	99
29	The Quasi-Pt Allotrope Catalyst: Hollow $\text{PtCo}@$ Single-Atom Pt <sub>1</sub> on Nitrogen-Doped Carbon toward Superior Oxygen Reduction. <i>Advanced Functional Materials</i> , 2019, 29, 1807340.	7.8	97
30	Remedies for Polysulfide Dissolution in Room-Temperature Sodium-Sulfur Batteries. <i>Advanced Materials</i> , 2020, 32, e1903952.	11.1	96
31	Nanocomposites of silicon and carbon derived from coal tar pitch: Cheap anode materials for lithium-ion batteries with long cycle life and enhanced capacity. <i>Electrochimica Acta</i> , 2013, 93, 213-221.	2.6	93
32	Defect Sites-Rich Porous Carbon with Pseudocapacitive Behaviors as an Ultrafast and Long-Term Cycling Anode for Sodium-Ion Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 9353-9361.	4.0	91
33	Platinum-Cobalt Bimetallic Nanoparticles with Pt Skin for Electro-Oxidation of Ethanol. <i>ACS Catalysis</i> , 2017, 7, 892-895.	5.5	89
34	Morphology tuning of inorganic nanomaterials grown by precipitation through control of electrolytic dissociation and supersaturation. <i>Nature Chemistry</i> , 2019, 11, 695-701.	6.6	86
35	Targeted Synergy between Adjacent Co Atoms on Graphene Oxide as an Efficient New Electrocatalyst for $\text{LiCO}_2$ Batteries. <i>Advanced Functional Materials</i> , 2019, 29, 1904206.	7.8	86
36	Tailoring MXene-Based Materials for Sodium-Ion Storage: Synthesis, Mechanisms, and Applications. <i>Electrochemical Energy Reviews</i> , 2020, 3, 766-792.	13.1	86

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37	Multiregion Janus-Featured Cobalt Phosphide-Cobalt Composite for Highly Reversible Room-Temperature Sodium-Sulfur Batteries. ACS Nano, 2020, 14, 10284-10293.	7.3	81
38	TiO <sub>2</sub> -Coated Interlayer-Expanded MoSe <sub>2</sub> /Phosphorus-Doped Carbon Nanospheres for Ultrafast and Ultralong Cycling Sodium Storage. Advanced Science, 2019, 6, 1801222.	5.6	80
39	General Synthesis of Single-Atom Catalysts for Hydrogen Evolution Reactions and Room-Temperature Na-S Batteries. Angewandte Chemie - International Edition, 2020, 59, 22171-22178.	7.2	80
40	Highly efficient Co <sub>3</sub> O <sub>4</sub> /Co@NCs bifunctional oxygen electrocatalysts for long life rechargeable Zn-air batteries. Nano Energy, 2020, 77, 105200.	8.2	71
41	Sulfur-Based Electrodes that Function via Multielectron Reactions for Room-Temperature Sodium-Ion Storage. Angewandte Chemie - International Edition, 2019, 58, 18324-18337.	7.2	69
42	Recent advanced skeletons in sodium metal anodes. Energy and Environmental Science, 0, , .	15.6	69
43	Germanium Nanograin Decoration on Carbon Shell: Boosting Lithium Storage Properties of Silicon Nanoparticles. Advanced Functional Materials, 2016, 26, 7800-7806.	7.8	68
44	Spontaneous self-intercalation of copper atoms into transition metal dichalcogenides. Science Advances, 2020, 6, eaay4092.	4.7	67
45	Tunable Electrocatalytic Behavior of Sodiated MoS <sub>2</sub> Active Sites toward Efficient Sulfur Redox Reactions in Room-Temperature Na-S Batteries. Advanced Materials, 2021, 33, e2100229.	11.1	66
46	In Situ Grown S Nanosheets on Cu Foam: An Ultrahigh Electroactive Cathode for Room-Temperature Na-S Batteries. ACS Applied Materials & Interfaces, 2017, 9, 24446-24450.	4.0	65
47	Self-Assembling Hollow Carbon Nanobeads into Double-Shell Microspheres as a Hierarchical Sulfur Host for Sustainable Room-Temperature Sodium-Sulfur Batteries. ACS Applied Materials & Interfaces, 2018, 10, 20422-20428.	4.0	65
48	Long-Life Room-Temperature Sodium-Sulfur Batteries by Virtue of Transition-Metal-Nanocluster-Sulfur Interactions. Angewandte Chemie, 2019, 131, 1498-1502.	1.6	63
49	Lithium storage performance and interfacial processes of three dimensional porous Sn-Co alloy electrodes for lithium-ion batteries. Electrochimica Acta, 2011, 56, 5979-5987.	2.6	62
50	General Synthesis of Single-Atom Catalysts for Hydrogen Evolution Reactions and Room-Temperature Na-S Batteries. Angewandte Chemie, 2020, 132, 22355-22362.	1.6	62
51	Materials engineering for adsorption and catalysis in room-temperature Na-S batteries. Energy and Environmental Science, 2021, 14, 3757-3795.	15.6	62
52	A facile route to synthesize transition metal oxide/reduced graphene oxide composites and their lithium storage performance. RSC Advances, 2013, 3, 16597.	1.7	61
53	In Situ Formation of Co <sub>9</sub> S <sub>8</sub> Nanoclusters in Sulfur-Doped Carbon Foam as a Sustainable and High-Rate Sodium-Ion Anode. ACS Applied Materials & Interfaces, 2019, 11, 19218-19226.	4.0	51
54	Electrodeposited binder-free Sb/NiSb anode of sodium-ion batteries with excellent cycle stability and rate capability and new insights into its reaction mechanism by operando XRD analysis. Nano Energy, 2020, 77, 105123.	8.2	51

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55	Progress and Challenges for All-Solid-State Sodium Batteries. <i>Advanced Energy and Sustainability Research</i> , 2021, 2, 2000057.	2.8	49
56	Continuous Carbon Channels Enable Full Na <sup>+</sup> Ion Accessibility for Superior Room-Temperature Na <sup>+</sup> S Batteries. <i>Advanced Materials</i> , 2022, 34, e2108363.	11.1	49
57	Ordered platinum-bismuth intermetallic clusters with Pt-skin for a highly efficient electrochemical ethanol oxidation reaction. <i>Journal of Materials Chemistry A</i> , 2019, 7, 5214-5220.	5.2	48
58	Nanoengineering to Achieve High Sodium Storage: A Case Study of Carbon Coated Hierarchical Nanoporous TiO <sub>2</sub> Microfibers. <i>Advanced Science</i> , 2016, 3, 1600013.	5.6	47
59	Super Kinetically Pseudocapacitive MnCo <sub>2</sub> S <sub>4</sub> Nanourchins toward High-Rate and Highly Stable Sodium Ion Storage. <i>Advanced Functional Materials</i> , 2020, 30, 1909702.	7.8	47
60	Architecting Freestanding Sulfur Cathodes for Superior Room-Temperature Na <sup>+</sup> S Batteries. <i>Advanced Functional Materials</i> , 2021, 31, 2102280.	7.8	46
61	Atomically thin Co <sub>3</sub> O <sub>4</sub> nanosheet-coated stainless steel mesh with enhanced capacitive Na <sup>+</sup> storage for high-performance sodium-ion batteries. <i>2D Materials</i> , 2017, 4, 015022.	2.0	44
62	S/N-doped carbon nanofibers affording Fe <sub>7</sub> S <sub>8</sub> particles with superior sodium storage. <i>Journal of Power Sources</i> , 2020, 451, 227790.	4.0	43
63	Lotus rhizome-like S/N <sup>+</sup> C with embedded WS <sub>2</sub> for superior sodium storage. <i>Journal of Materials Chemistry A</i> , 2019, 7, 25932-25943.	5.2	39
64	Sustainable S cathodes with synergic electrocatalysis for room-temperature Na <sup>+</sup> S batteries. <i>Journal of Materials Chemistry A</i> , 2021, 9, 566-574.	5.2	39
65	Boosting electrochemical kinetics of S cathodes for room temperature Na/S batteries. <i>Matter</i> , 2021, 4, 1768-1800.	5.0	39
66	Highly Electrochemically Reversible Mesoporous Na <sub>2</sub> FePO <sub>4</sub> /C as Cathode Material for High-Performance Sodium Ion Batteries. <i>Small</i> , 2019, 15, e1903723.	5.2	38
67	Streamline Sulfur Redox Reactions to Achieve Efficient Room-Temperature Sodium-Sulfur Batteries. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	38
68	Facile and reversible digestion and regeneration of zirconium-based metal-organic frameworks. <i>Communications Chemistry</i> , 2020, 3, .	2.0	35
69	Activating Inert Surface Pt Single Atoms via Subsurface Doping for Oxygen Reduction Reaction. <i>Nano Letters</i> , 2021, 21, 7970-7978.	4.5	33
70	Highly efficient and selective electrocatalytic hydrogen peroxide production on Co-O-C active centers on graphene oxide. <i>Communications Chemistry</i> , 2022, 5, .	2.0	33
71	The electrochemical properties of high-capacity sulfur/reduced graphene oxide with different electrolyte systems. <i>Journal of Power Sources</i> , 2013, 244, 240-245.	4.0	32
72	Layered mesoporous CoO/reduced graphene oxide with strong interfacial coupling as a high-performance anode for lithium-ion batteries. <i>Journal of Alloys and Compounds</i> , 2020, 843, 156050.	2.8	32

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73	Understanding Sulfur Redox Mechanisms in Different Electrolytes for Room-Temperature Na <sup>+</sup> /S Batteries. Nano-Micro Letters, 2021, 13, 121.	14.4	31
74	Atomically dispersed S-Fe-N4 for fast kinetics sodium-sulfur batteries via a dual function mechanism. Cell Reports Physical Science, 2021, 2, 100531.	2.8	31
75	Alkali-Metal Sulfide as Cathodes toward Safe and High-Capacity Metal (M = Li, Na, K) Sulfur Batteries. Advanced Energy Materials, 2020, 10, 2001764.	10.2	29
76	Electrolytes/Interphases: Enabling Distinguishable Sulfur Redox Processes in Room-Temperature Sodium-Sulfur Batteries. Advanced Energy Materials, 2022, 12, .	10.2	29
77	Fabrication and electrochemical properties of the Sn-Ni-P alloy rods array electrode for lithium-ion batteries. Electrochemistry Communications, 2010, 12, 1226-1229.	2.3	28
78	General Electron-Assisted Strategy for Ir, Pt, Ru, Pd, Fe, Ni Single-Atom Electrocatalysts with Bifunctional Active Sites for Highly Efficient Water Splitting. Angewandte Chemie, 2019, 131, 11994-11999.	1.6	28
79	Surface Modification of Fe <sub>7</sub> S <sub>8</sub> /C Anode via Ultrathin Amorphous TiO <sub>2</sub> Layer for Enhanced Sodium Storage Performance. Small, 2020, 16, e2000745.	5.2	28
80	Atomic Cobalt Vacancy Cluster Enabling Optimized Electronic Structure for Efficient Water Splitting. Advanced Functional Materials, 2021, 31, 2101797.	7.8	26
81	Atomic Structural Evolution of Single-Layer Pt Clusters as Efficient Electrocatalysts. Small, 2021, 17, e2100732.	5.2	26
82	Recent Advances in Seawater Electrolysis. Catalysts, 2022, 12, 123.	1.6	26
83	Efficient separators with fast Li-ion transfer and high polysulfide entrapment for superior lithium-sulfur batteries. Chemical Engineering Journal, 2021, 408, 127348.	6.6	25
84	A hybrid electrolyte energy storage device with high energy and long life using lithium anode and MnO <sub>2</sub> nanoflake cathode. Electrochemistry Communications, 2013, 31, 35-38.	2.3	24
85	Novel Li <sub>3</sub> VO <sub>4</sub> Nanostructures Grown in Highly Efficient Microwave Irradiation Strategy and Their In Situ Lithium Storage Mechanism. Advanced Science, 2022, 9, e2103493.	5.6	23
86	Germanene Nanosheets: Achieving Superior Sodium-Ion Storage via Pseudointercalation Reactions. Small Structures, 2021, 2, 2100041.	6.9	20
87	Electrochemical release of catalysts in nanoreactors for solid sulfur redox reactions in room-temperature sodium-sulfur batteries. Cell Reports Physical Science, 2021, 2, 100539.	2.8	20
88	Green energy application technology of litchi pericarp-derived carbon material with high performance. Journal of Cleaner Production, 2021, 286, 124960.	4.6	18
89	Chemically Bonded Sn Nanoparticles Using the Crosslinked Epoxy Binder for High Energy-Density Li Ion Battery. Advanced Materials Interfaces, 2016, 3, 1600662.	1.9	17
90	Carbonaceous Hosts for Sulfur Cathode in Alkali-Metal/S (Alkali Metal = Lithium, Sodium, Potassium) Batteries. Small, 2021, 17, e2006504.	5.2	17

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91	Superior Li storage anode based on novel Fe-Sn-P alloy prepared by electroplating. <i>Electrochimica Acta</i> , 2017, 247, 314-320.	2.6	16
92	Engineering the Distribution of Carbon in Silicon Oxide Nanospheres at the Atomic Level for Highly Stable Anodes. <i>Angewandte Chemie</i> , 2019, 131, 6741-6745.	1.6	16
93	Manipulating 2D Few-Layer Metal Sulfides as Anode Towards Enhanced Sodium-Ion Batteries. <i>Batteries and Supercaps</i> , 2020, 3, 236-253.	2.4	16
94	New monatomic layer clusters for advanced catalysis materials. <i>Science China Materials</i> , 2019, 62, 149-153.	3.5	12
95	An electrodeposition strategy for the controllable and cost-effective fabrication of Sb-Fe-P anodes for Li ion batteries. <i>Electrochimica Acta</i> , 2019, 309, 469-476.	2.6	11
96	Two-shell configuration for bimetal selenides toward fast sodium storage within broadened voltage windows. , 2022, 4, 586-597.		10
97	Schwefelbasierte Elektroden mit Mehrelektronenreaktionen für Raumtemperatur-Natriumionenspeicherung. <i>Angewandte Chemie</i> , 2019, 131, 18490-18504.	1.6	9
98	Electrodeposited Binder-Free Antimony-Iron-Phosphorous Composites as Advanced Anodes for Sodium-Ion Batteries. <i>ChemElectroChem</i> , 2019, 6, 5420-5427.	1.7	6
99	Self-assembling RuO <sub>2</sub> nanogranulates with few carbon layers as an interconnected nanoporous structure for lithium-oxygen batteries. <i>Chemical Communications</i> , 2020, 56, 7253-7256.	2.2	5
100	Effect of ether-based electrolyte composition on the lithium storage performance of copper sulfide. <i>Electrochimica Acta</i> , 2020, 335, 135662.	2.6	3
101	Streamline Sulfur Redox Reactions to Achieve Efficient Room-Temperature Sodium-Sulfur Batteries. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	3
102	Sodium-Sulfur Batteries: Remedies for Polysulfide Dissolution in Room-Temperature Sodium-Sulfur Batteries ( <i>Adv. Mater.</i> 18/2020). <i>Advanced Materials</i> , 2020, 32, 2070145.	11.1	2
103	Sodium Ion Storage: TiO <sub>2</sub> -Coated Interlayer-Expanded MoSe <sub>2</sub> /Phosphorus-Doped Carbon Nanospheres for Ultrafast and Ultralong Cycling Sodium Storage ( <i>Adv. Sci.</i> 1/2019). <i>Advanced Science</i> , 2019, 6, 1970005.	5.6	1
104	Nanoparticles: Germanium Nanograin Decoration on Carbon Shell: Boosting Lithium-Storage Properties of Silicon Nanoparticles ( <i>Adv. Funct. Mater.</i> 43/2016). <i>Advanced Functional Materials</i> , 2016, 26, 7799-7799.	7.8	0