

# Xiaowei Yang

## List of Publications by Year in descending order

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107  
papers

8,152  
citations

76326

40  
h-index

46799

89  
g-index

111  
all docs

111  
docs citations

111  
times ranked

11595  
citing authors

#	ARTICLE	IF	CITATIONS
1	Liquid-Mediated Dense Integration of Graphene Materials for Compact Capacitive Energy Storage. <i>Science</i> , 2013, 341, 534-537.	12.6	1,666
2	Bioinspired Effective Prevention of Restacking in Multilayered Graphene Films: Towards the Next Generation of High-Performance Supercapacitors. <i>Advanced Materials</i> , 2011, 23, 2833-2838.	21.0	954
3	Amorphous Metallic NiFeP: A Conductive Bulk Material Achieving High Activity for Oxygen Evolution Reaction in Both Alkaline and Acidic Media. <i>Advanced Materials</i> , 2017, 29, 1606570.	21.0	441
4	Dispersing Carbon Nanotubes with Graphene Oxide in Water and Synergistic Effects between Graphene Derivatives. <i>Chemistry - A European Journal</i> , 2010, 16, 10653-10658.	3.3	373
5	Ordered Gelation of Chemically Converted Graphene for Next-Generation Electroconductive Hydrogel Films. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 7325-7328.	13.8	281
6	Toward Superior Capacitive Energy Storage: Recent Advances in Pore Engineering for Dense Electrodes. <i>Advanced Materials</i> , 2018, 30, e1705713.	21.0	195
7	Revisiting the capacitance of polyaniline by using graphene hydrogel films as a substrate: the importance of nano-architecturing. <i>Energy and Environmental Science</i> , 2013, 6, 477-481.	30.8	186
8	High-Performance and Breathable Polypyrrole Coated Air-Laid Paper for Flexible All-Solid-State Supercapacitors. <i>Advanced Energy Materials</i> , 2017, 7, 1701247.	19.5	167
9	Microwave-assisted synthesis of honeycomblike hierarchical spherical Zn-doped Ni-MOF as a high-performance battery-type supercapacitor electrode material. <i>Electrochimica Acta</i> , 2018, 278, 114-123.	5.2	163
10	Toward Planar and Dendrite-Free Zn Electrodepositions by Regulating Sn-Crystal Textured Surface. <i>Advanced Materials</i> , 2021, 33, e2008424.	21.0	144
11	A Co(OH) <sub>2</sub> ~graphene nanosheets composite as a high performance anode material for rechargeable lithium batteries. <i>Electrochemistry Communications</i> , 2010, 12, 570-573.	4.7	142
12	Dense integration of graphene and sulfur through the soft approach for compact lithium/sulfur battery cathode. <i>Nano Energy</i> , 2015, 12, 468-475.	16.0	142
13	Accelerating bioelectric functional development of neural stem cells by graphene coupling: Implications for neural interfacing with conductive materials. <i>Biomaterials</i> , 2016, 106, 193-204.	11.4	124
14	Facile Spray Drying Route for the Three-Dimensional Graphene-Encapsulated Fe <sub>2</sub> O <sub>3</sub> Nanoparticles for Lithium Ion Battery Anodes. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 1197-1204.	3.7	116
15	MBenes: emerging 2D materials as efficient electrocatalysts for the nitrogen reduction reaction. <i>Nanoscale Horizons</i> , 2020, 5, 1106-1115.	8.0	114
16	Vertically Aligned Carbon Nanotubes on Carbon Nanofibers: A Hierarchical Three-Dimensional Carbon Nanostructure for High-Energy Flexible Supercapacitors. <i>Chemistry of Materials</i> , 2015, 27, 1194-1200.	6.7	113
17	Free-standing and highly conductive PEDOT nanowire films for high-performance all-solid-state supercapacitors. <i>Journal of Materials Chemistry A</i> , 2019, 7, 1323-1333.	10.3	106
18	Boron Nitride Nanotubes for Ammonia Synthesis: Activation by Filling Transition Metals. <i>Journal of the American Chemical Society</i> , 2020, 142, 308-317.	13.7	105

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19	In Situ Growth of Polypyrrole onto Three-Dimensional Tubular MoS <sub>2</sub> as an Advanced Negative Electrode Material for Supercapacitor. <i>Electrochimica Acta</i> , 2017, 246, 615-624.	5.2	95
20	High-Rate and High-Volumetric Capacitance of Compact Graphene-Polyaniline Hydrogel Electrodes. <i>Advanced Energy Materials</i> , 2016, 6, 1600185.	19.5	91
21	2D Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene couples electrical stimulation to promote proliferation and neural differentiation of neural stem cells. <i>Acta Biomaterialia</i> , 2022, 139, 105-117.	8.3	86
22	A novel bath lily-like graphene sheet-wrapped nano-Si composite as a high performance anode material for Li-ion batteries. <i>RSC Advances</i> , 2011, 1, 958.	3.6	85
23	MXene nanoribbons as electrocatalysts for the hydrogen evolution reaction with fast kinetics. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 19390-19397.	2.8	74
24	Tribological property of onion-like fullerenes as lubricant additive. <i>Materials Letters</i> , 2008, 62, 2524-2527.	2.6	72
25	An experimental insight into the advantages of in situ solvothermal route to construct 3D graphene-based anode materials for lithium-ion batteries. <i>Nano Energy</i> , 2015, 16, 235-246.	16.0	69
26	A novel catalyst support for DMFC: Onion-like fullerenes. <i>Journal of Power Sources</i> , 2006, 162, 160-164.	7.8	68
27	Defect-Free Metal-Organic Framework Membrane for Precise Ion/Solvent Separation toward Highly Stable Magnesium Metal Anode. <i>Advanced Materials</i> , 2022, 34, e2108114.	21.0	66
28	High voltage supercapacitors using hydrated graphene film in a neutral aqueous electrolyte. <i>Electrochemistry Communications</i> , 2011, 13, 1166-1169.	4.7	64
29	Polyaniline-modified cetyltrimethylammonium bromide-graphene oxide-sulfur nanocomposites with enhanced performance for lithium-sulfur batteries. <i>Nano Research</i> , 2014, 7, 1355-1363.	10.4	63
30	Regulating Fast Anionic Redox for High-Voltage Aqueous Hydrogen-Based Energy Storage. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 205-210.	13.8	61
31	Three-dimensional metal/oxide nanocone arrays for high-performance electrochemical pseudocapacitors. <i>Nanoscale</i> , 2014, 6, 3626-3631.	5.6	57
32	Facile Synthesis of a MoS <sub>2</sub> and Functionalized Graphene Heterostructure for Enhanced Lithium-Storage Performance. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 12907-12913.	8.0	56
33	Revisiting the degradation of solid/electrolyte interfaces of magnesium metal anodes: Decisive role of interfacial composition. <i>Nano Energy</i> , 2021, 86, 106087.	16.0	55
34	Rational Design of the Robust Janus Shell on Silicon Anodes for High-Performance Lithium-Ion Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 17375-17383.	8.0	49
35	Microwave-assisted synthesis method for rapid synthesis of tin selenide electrode material for supercapacitors. <i>Journal of Alloys and Compounds</i> , 2018, 737, 623-629.	5.5	47
36	Facile synthesis of fluorine doped single crystal Ni-rich cathode material for lithium-ion batteries. <i>Solid State Ionics</i> , 2019, 342, 115065.	2.7	44

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37	MXene Frameworks Promote the Growth and Stability of LiF-Rich Solid-Electrolyte Interphases on Silicon Nanoparticle Bundles. ACS Applied Materials & Interfaces, 2020, 12, 18541-18550.	8.0	44
38	Fabrication of mesoporous Li <sub>2</sub> S-C nanofibers for high performance Li/Li <sub>2</sub> S cell cathodes. Nanoscale, 2015, 7, 9472-9476.	5.6	43
39	A dual-spatially-confined reservoir by packing micropores within dense graphene for long-life lithium/sulfur batteries. Nanoscale, 2016, 8, 2395-2402.	5.6	43
40	Structure of nanocarbons prepared by arc discharge in water. Materials Chemistry and Physics, 2007, 105, 175-178.	4.0	42
41	Low-dimensional non-metal catalysts: principles for regulating p-orbital-dominated reactivity. Npj Computational Materials, 2021, 7, .	8.7	41
42	Porous amorphous NiFeOx/NiFeP framework with dual electrocatalytic functions for water electrolysis. Journal of Power Sources, 2019, 428, 76-81.	7.8	40
43	Three-Dimensional Magnesiophilic Scaffolds for Reduced Passivation toward High-Rate Mg Metal Anodes in a Noncorrosive Electrolyte. ACS Applied Materials & Interfaces, 2020, 12, 28298-28305.	8.0	40
44	Tailoring Coordination in Conventional Ether-Based Electrolytes for Reversible Magnesium Metal Anodes. Angewandte Chemie - International Edition, 2022, 61, .	13.8	38
45	Solution-processed two-dimensional layered heterostructure thin-film with optimized thermoelectric performance. Physical Chemistry Chemical Physics, 2017, 19, 17560-17567.	2.8	37
46	Three dimensional frameworks of super ionic conductor for thermodynamically and dynamically favorable sodium metal anode. Nano Energy, 2020, 70, 104479.	16.0	34
47	Electrostatic Shielding Guides Lateral Deposition for Stable Interphase toward Reversible Magnesium Metal Anodes. ACS Applied Materials & Interfaces, 2020, 12, 19601-19606.	8.0	34
48	High-Performance Sodium-Ion Battery Anode via Rapid Microwave Carbonization of Natural Cellulose Nanofibers with Graphene Initiator. Small, 2019, 15, e1901724.	10.0	33
49	Freestanding, Three-Dimensional, and Conductive MoS <sub>2</sub> Hydrogel via the Mediation of Surface Charges for High-Rate Supercapacitor. ACS Applied Energy Materials, 2019, 2, 4458-4463.	5.1	33
50	Epitaxial growth of an atom-thin layer on a LiNi <sub>0.5</sub> Mn <sub>1.5</sub> O <sub>4</sub> cathode for stable Li-ion battery cycling. Nature Communications, 2022, 13, 1565.	12.8	32
51	Regulating Fast Anionic Redox for High-Voltage Aqueous Hydrogen-Ion-based Energy Storage. Angewandte Chemie, 2019, 131, 211-216.	2.0	30
52	Boron-doped single crystal LiNi <sub>0.6</sub> Mn <sub>0.2</sub> Co <sub>0.2</sub> O <sub>2</sub> with improved electrochemical performance for lithium-ion batteries. Ionics, 2019, 25, 5819-5827.	2.4	29
53	Activating Three-Dimensional Networks of Fe@Ni Nanofibers via Fast Surface Modification for Efficient Overall Water Splitting. ACS Applied Materials & Interfaces, 2019, 11, 18342-18348.	8.0	29
54	Integrating in situ solvothermal approach synthesized nanostructured tin anchored on graphene sheets into film anodes for sodium-ion batteries. Electrochimica Acta, 2016, 196, 572-578.	5.2	28

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55	Sustained Delivery Growth Factors with Polyethyleneimine-Modified Nanoparticles Promote Embryonic Stem Cells Differentiation and Liver Regeneration. <i>Advanced Science</i> , 2016, 3, 1500393.	11.2	27
56	Structurally Tunable Reduced Graphene Oxide Substrate Maintains Mouse Embryonic Stem Cell Pluripotency. <i>Advanced Science</i> , 2019, 6, 1802136.	11.2	27
57	Agglomeration-resistant 2D nanoflakes configured with super electronic networks for extraordinary fast and stable sodium-ion storage. <i>Nano Energy</i> , 2019, 56, 502-511.	16.0	27
58	Correlating cycle performance improvement and structural alleviation in LiMn <sub>2-x</sub> MxO <sub>4</sub> spinel cathode materials: A systematic study on the effects of metal-ion doping. <i>Electrochimica Acta</i> , 2019, 298, 806-817.	5.2	26
59	Realization of wafer-scale nanogratings with sub-50 nm period through vacancy epitaxy. <i>Nature Communications</i> , 2019, 10, 2437.	12.8	24
60	MXene/reduced graphene oxide hydrogel film extraction combined with gas chromatography-tandem mass spectrometry for the determination of 16 polycyclic aromatic hydrocarbons in river and tap water. <i>Journal of Chromatography A</i> , 2019, 1584, 24-32.	3.7	24
61	Regulating adhesion of solid-electrolyte interphase to silicon via covalent bonding strategy towards high Coulombic-efficiency anodes. <i>Nano Energy</i> , 2021, 84, 105935.	16.0	24
62	Engineering Two-Dimensional Mass-Transport Channels of the MoS <sub>2</sub> Nanocatalyst toward Improved Hydrogen Evolution Performance. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 25409-25414.	8.0	23
63	Exploiting Interfacial Cl <sup>-</sup> /Cl <sup>0</sup> Redox for a 1.8-V Voltage Plateau Aqueous Electrochemical Capacitor. <i>ACS Energy Letters</i> , 2021, 6, 1134-1140.	17.4	22
64	Monodisperse carbon microspheres synthesized from asphaltene. <i>Materials Chemistry and Physics</i> , 2009, 113, 821-823.	4.0	21
65	Engineering graphene for high-performance supercapacitors: Enabling role of colloidal chemistry. <i>Journal of Energy Chemistry</i> , 2018, 27, 1-5.	12.9	21
66	Enhanced electrochemical performance of the layered nickel-rich oxide cathode by KMnO <sub>4</sub> treatment precursor. <i>Journal of Alloys and Compounds</i> , 2019, 808, 151683.	5.5	21
67	Silicon Nanocages for Selective Carbon Dioxide Conversion under Visible Light. <i>Journal of Physical Chemistry C</i> , 2019, 123, 9973-9980.	3.1	21
68	Pt/onion-like fullerenes as catalyst for direct methanol fuel cell. <i>Rare Metals</i> , 2006, 25, 305-308.	7.1	20
69	Effectively incorporating iron, nitrogen, and sulfur functionalities on carbon surface for a superior electrocatalyst toward oxygen reduction reaction. <i>Electrochemistry Communications</i> , 2017, 81, 34-37.	4.7	20
70	Beneficial restacking of 2D nanomaterials for electrocatalysis: a case of MoS <sub>2</sub> membranes. <i>Chemical Communications</i> , 2020, 56, 7005-7008.	4.1	20
71	Hydrothermal modification of natural graphite as an anode material for lithium secondary batteries. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2006, 128, 11-15.	3.5	19
72	Boosting the Sodiation Capability and Stability of FeP by In Situ Anchoring on the Graphene Conductive Framework. <i>ChemNanoMat</i> , 2018, 4, 309-315.	2.8	19

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73	Engineering Sodium Metal Anode with Sodiophilic Bismuthide Penetration for Dendrite-Free and High-Rate Sodium-Ion Battery. <i>Engineering</i> , 2022, 11, 87-94.	6.7	18
74	Dynamic Electrosorption Analysis as an Effective Means to Characterise the Structure of Bulk Graphene Assemblies. <i>Chemistry - A European Journal</i> , 2013, 19, 3082-3089.	3.3	17
75	Vertical crosslinking MoS <sub>2</sub> /three-dimensional graphene composite towards high performance supercapacitor. <i>Chinese Chemical Letters</i> , 2018, 29, 606-611.	9.0	17
76	Poly( $\mu$ -caprolactone)-based copolymers bearing pendant cyclic ketals and reactive acrylates for the fabrication of photocrosslinked elastomers. <i>Acta Biomaterialia</i> , 2013, 9, 8232-8244.	8.3	16
77	Decreasing Ion-Diffusion Barrier Enables Superior Na-Ion Storage by Synergizing Hierarchical Architecture and Lattice Distortion. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 27024-27032.	8.0	16
78	Rational design of robust nano-Si/graphite nanocomposites anodes with strong interfacial adhesion for high-performance lithium-ion batteries. <i>Chinese Chemical Letters</i> , 2021, 32, 910-913.	9.0	16
79	A novel Co(phen) <sub>2</sub> /C catalyst for the oxygen electrode in rechargeable lithium air batteries. <i>Science Bulletin</i> , 2012, 57, 1959-1963.	1.7	15
80	Engineering two-dimensional pores in freestanding TiO <sub>2</sub> /graphene gel film for high performance lithium ion battery. <i>Journal of Energy Chemistry</i> , 2018, 27, 176-182.	12.9	15
81	High-voltage bi-redox lithium-ion capacitor enabled by energizing free water in "water-in-salt" electrolyte. <i>Journal of Power Sources</i> , 2019, 423, 331-338.	7.8	15
82	Structural and chemical interplay between nano-active and encapsulation materials in a core-shell SnO <sub>2</sub> @MXene lithium ion anode system. <i>CrystEngComm</i> , 2021, 23, 368-377.	2.6	15
83	Intrinsic factors attenuate the performance of anhydride organic cathode materials of lithium battery. <i>Journal of Electroanalytical Chemistry</i> , 2016, 773, 22-26.	3.8	12
84	Metal-Encapsulated Boron Nitride Nanocages for Solar-Driven Nitrogen Fixation. <i>Journal of Physical Chemistry C</i> , 2020, 124, 23798-23806.	3.1	12
85	Multilayered graphene membrane as an experimental platform to probe nano-confined electrosorption. <i>Progress in Natural Science: Materials International</i> , 2012, 22, 668-672.	4.4	11
86	Design of a multilayer-based collimated plane-grating monochromator for tender X-ray range. <i>Journal of Synchrotron Radiation</i> , 2017, 24, 168-174.	2.4	11
87	Integrating Fast Potential-Fringe Battery Reactions for High-Voltage Battery-Supercapacitor Hybrid Energy Storage Systems. <i>Batteries and Supercaps</i> , 2019, 2, 766-773.	4.7	10
88	Reducing Crystallinity of Micrometer-Sized Titanium-Niobium Oxide through Cation Substitution for High-Rate Lithium Storage. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 7422-7430.	6.7	10
89	Morphology mediation of MoS <sub>2</sub> nanosheets with organic cations for fast sodium ion storage. <i>Chinese Chemical Letters</i> , 2021, 32, 880-884.	9.0	9
90	Tailoring Coordination in Conventional Ether-Based Electrolytes for Reversible Magnesium-Metal Anodes. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	9

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91	Dynamic electrosorption analysis: a viable liquid-phase characterization method for porous carbon?. Journal of Materials Chemistry A, 2013, 1, 9332.	10.3	8
92	Engineering Microsized Materials through Enhanced Colloidal Interactions of Graphene for Ultrahigh-Mass-Loading and Flexible Electrodes. ACS Applied Energy Materials, 2018, 1, 2378-2384.	5.1	8
93	Proton-induced fast preparation of size-controllable MoS <sub>2</sub> nanocatalyst towards highly efficient water electrolysis. Chinese Chemical Letters, 2021, 32, 1191-1196.	9.0	8
94	New boron nitride monolith phases from high-pressure compression of double-walled boron nitride nanotubes. Journal of Chemical Physics, 2021, 154, 134702.	3.0	8
95	Electrocatalytic properties of platinum on hard carbon spherules derived from deoiled asphalt for methanol oxidation. Catalysis Today, 2007, 125, 169-172.	4.4	7
96	A Porous and Interconnected Polypyrrole Film with High Conductivity and Ion Accessibility as Electrode for Flexible All-Solid-State Supercapacitors. ChemElectroChem, 2019, 6, 5479-5485.	3.4	7
97	ZIF-8 penetrating composite membrane for ion sieving. Journal of Solid State Chemistry, 2022, 313, 123281.	2.9	7
98	Supercapacitors. Chinese Chemical Letters, 2018, 29, 551-552.	9.0	6
99	Ionic Liquid-Mediated Mass Transport Channels for Ultrahigh Rate Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 46756-46762.	8.0	6
100	Study on Characterizations and Growth Mechanism of Pt/Onion-like Fullerenes Catalyst. Acta Physico-chimica Sinica, 2006, 22, 967-971.	0.6	5
101	Processing micrometer-sized particles in crumpled graphene network for freestanding membrane enabled by freeze casting. Chinese Chemical Letters, 2020, 31, 265-268.	9.0	5
102	Revisiting the anodic stability of nickel-cobalt hydroxide/carbon composite electrodes for rechargeable Ni-Zn battery. Chinese Chemical Letters, 2022, 33, 2648-2652.	9.0	5
103	Reversal effect of low-intensity ultrasound on adriamycin-resistant human hepatoma cells <i>in vitro</i> and <i>in vivo</i> . International Journal of Imaging Systems and Technology, 2014, 24, 23-28.	4.1	3
104	Advances in the mass transport for 2D nano-catalyst: Toward superior electrocatalytic water splitting. FlatChem, 2019, 14, 100087.	5.6	3
105	In Situ Growth of SnO <sub>2</sub> on Graphene Nanosheets as Advanced Anode Materials for Rechargeable Lithium Batteries. ECS Transactions, 2010, 28, 151-156.	0.5	2
106	Sodium-Ion Batteries: High-Performance Sodium-Ion Battery Anode via Rapid Microwave Carbonization of Natural Cellulose Nanofibers with Graphene Initiator (Small 41/2019). Small, 2019, 15, 1970223.	10.0	1
107	2D Ti & C & T & Mxene Couples Electrical Stimulation to Promote Proliferation and Neural Differentiation of Neural Stem Cells. SSRN Electronic Journal, 0, , .	0.4	0