

# Xiaowei Yang

## List of Publications by Year in descending order

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107  
papers

8,152  
citations

76196

40  
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46693

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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.	6.0	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.	11.1	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.	11.1	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.	1.7	373
5	Ordered Gelation of Chemically Converted Graphene for Next-Generation Electroconductive Hydrogel Films. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 7325-7328.	7.2	281
6	Toward Superior Capacitive Energy Storage: Recent Advances in Pore Engineering for Dense Electrodes. <i>Advanced Materials</i> , 2018, 30, e1705713.	11.1	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.	15.6	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.	10.2	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.	2.6	163
10	Toward Planar and Dendrite-Free Zn Electrodepositions by Regulating Sn-Crystal Textured Surface. <i>Advanced Materials</i> , 2021, 33, e2008424.	11.1	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.	2.3	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.	8.2	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.	5.7	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.	1.8	116
15	MBenes: emerging 2D materials as efficient electrocatalysts for the nitrogen reduction reaction. <i>Nanoscale Horizons</i> , 2020, 5, 1106-1115.	4.1	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.	3.2	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.	5.2	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.	6.6	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.	2.6	95
20	High-Rate and High-Volumetric Capacitance of Compact Graphene-Polyaniline Hydrogel Electrodes. <i>Advanced Energy Materials</i> , 2016, 6, 1600185.	10.2	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.	4.1	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.	1.7	85
23	MXene nanoribbons as electrocatalysts for the hydrogen evolution reaction with fast kinetics. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 19390-19397.	1.3	74
24	Tribological property of onion-like fullerenes as lubricant additive. <i>Materials Letters</i> , 2008, 62, 2524-2527.	1.3	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.	8.2	69
26	A novel catalyst support for DMFC: Onion-like fullerenes. <i>Journal of Power Sources</i> , 2006, 162, 160-164.	4.0	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.	11.1	66
28	High voltage supercapacitors using hydrated graphene film in a neutral aqueous electrolyte. <i>Electrochemistry Communications</i> , 2011, 13, 1166-1169.	2.3	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.	5.8	63
30	Regulating Fast Anionic Redox for High-Voltage Aqueous Hydrogen-Based Energy Storage. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 205-210.	7.2	61
31	Three-dimensional metal/oxide nanocone arrays for high-performance electrochemical pseudocapacitors. <i>Nanoscale</i> , 2014, 6, 3626-3631.	2.8	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.	4.0	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.	8.2	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.	4.0	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.	2.8	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.	1.3	44

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37	MXene Frameworks Promote the Growth and Stability of LiF-Rich Solid-Electrolyte Interphases on Silicon Nanoparticle Bundles. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 18541-18550.	4.0	44
38	Fabrication of mesoporous Li <sub>2</sub> S-C nanofibers for high performance Li/Li <sub>2</sub> S cell cathodes. <i>Nanoscale</i> , 2015, 7, 9472-9476.	2.8	43
39	A dual-spatially-confined reservoir by packing micropores within dense graphene for long-life lithium/sulfur batteries. <i>Nanoscale</i> , 2016, 8, 2395-2402.	2.8	43
40	Structure of nanocarbons prepared by arc discharge in water. <i>Materials Chemistry and Physics</i> , 2007, 105, 175-178.	2.0	42
41	Low-dimensional non-metal catalysts: principles for regulating p-orbital-dominated reactivity. <i>Npj Computational Materials</i> , 2021, 7, .	3.5	41
42	Porous amorphous NiFeOx/NiFeP framework with dual electrocatalytic functions for water electrolysis. <i>Journal of Power Sources</i> , 2019, 428, 76-81.	4.0	40
43	Three-Dimensional Magnesiophilic Scaffolds for Reduced Passivation toward High-Rate Mg Metal Anodes in a Noncorrosive Electrolyte. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 28298-28305.	4.0	40
44	Tailoring Coordination in Conventional Ether-Based Electrolytes for Reversible Magnesium Metal Anodes. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	38
45	Solution-processed two-dimensional layered heterostructure thin-film with optimized thermoelectric performance. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 17560-17567.	1.3	37
46	Three dimensional frameworks of super ionic conductor for thermodynamically and dynamically favorable sodium metal anode. <i>Nano Energy</i> , 2020, 70, 104479.	8.2	34
47	Electrostatic Shielding Guides Lateral Deposition for Stable Interphase toward Reversible Magnesium Metal Anodes. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 19601-19606.	4.0	34
48	High-Performance Sodium-Ion Battery Anode via Rapid Microwave Carbonization of Natural Cellulose Nanofibers with Graphene Initiator. <i>Small</i> , 2019, 15, e1901724.	5.2	33
49	Freestanding, Three-Dimensional, and Conductive MoS <sub>2</sub> Hydrogel via the Mediation of Surface Charges for High-Rate Supercapacitor. <i>ACS Applied Energy Materials</i> , 2019, 2, 4458-4463.	2.5	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. <i>Nature Communications</i> , 2022, 13, 1565.	5.8	32
51	Regulating Fast Anionic Redox for High-Voltage Aqueous Hydrogen-Ion-based Energy Storage. <i>Angewandte Chemie</i> , 2019, 131, 211-216.	1.6	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. <i>Ionics</i> , 2019, 25, 5819-5827.	1.2	29
53	Activating Three-Dimensional Networks of Fe@Ni Nanofibers via Fast Surface Modification for Efficient Overall Water Splitting. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 18342-18348.	4.0	29
54	Integrating in situ solvothermal approach synthesized nanostructured tin anchored on graphene sheets into film anodes for sodium-ion batteries. <i>Electrochimica Acta</i> , 2016, 196, 572-578.	2.6	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.	5.6	27
56	Structurally Tunable Reduced Graphene Oxide Substrate Maintains Mouse Embryonic Stem Cell Pluripotency. <i>Advanced Science</i> , 2019, 6, 1802136.	5.6	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.	8.2	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.	2.6	26
59	Realization of wafer-scale nanogratings with sub-50 nm period through vacancy epitaxy. <i>Nature Communications</i> , 2019, 10, 2437.	5.8	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.	1.8	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.	8.2	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.	4.0	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.	8.8	22
64	Monodisperse carbon microspheres synthesized from asphaltene. <i>Materials Chemistry and Physics</i> , 2009, 113, 821-823.	2.0	21
65	Engineering graphene for high-performance supercapacitors: Enabling role of colloidal chemistry. <i>Journal of Energy Chemistry</i> , 2018, 27, 1-5.	7.1	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.	2.8	21
67	Silicon Nanocages for Selective Carbon Dioxide Conversion under Visible Light. <i>Journal of Physical Chemistry C</i> , 2019, 123, 9973-9980.	1.5	21
68	Pt/onion-like fullerenes as catalyst for direct methanol fuel cell. <i>Rare Metals</i> , 2006, 25, 305-308.	3.6	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.	2.3	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.	2.2	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.	1.7	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.	1.5	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.	3.2	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.	1.7	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.	4.8	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.	4.1	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.	4.0	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.	4.8	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.	7.1	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.	4.0	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.	1.3	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.	1.9	12
84	Metal-Encapsulated Boron Nitride Nanocages for Solar-Driven Nitrogen Fixation. <i>Journal of Physical Chemistry C</i> , 2020, 124, 23798-23806.	1.5	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.	1.8	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.	1.0	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.	2.4	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.	3.2	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.	4.8	9
90	Tailoring Coordination in Conventional Ether-Based Electrolytes for Reversible Magnesium-Metal Anodes. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	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.	5.2	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.	2.5	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.	4.8	8
94	New boron nitride monolith phases from high-pressure compression of double-walled boron nitride nanotubes. Journal of Chemical Physics, 2021, 154, 134702.	1.2	8
95	Electrocatalytic properties of platinum on hard carbon spherules derived from deoiled asphalt for methanol oxidation. Catalysis Today, 2007, 125, 169-172.	2.2	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.	1.7	7
97	ZIF-8 penetrating composite membrane for ion sieving. Journal of Solid State Chemistry, 2022, 313, 123281.	1.4	7
98	Supercapacitors. Chinese Chemical Letters, 2018, 29, 551-552.	4.8	6
99	Ionic Liquid-Mediated Mass Transport Channels for Ultrahigh Rate Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 46756-46762.	4.0	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.	4.8	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.	4.8	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.	2.7	3
104	Advances in the mass transport for 2D nano-catalyst: Toward superior electrocatalytic water splitting. FlatChem, 2019, 14, 100087.	2.8	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.	0.3	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.	5.2	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