

Xiaopeng Hao

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Three-Dimensional MoS ₂ @CNT/RGO Network Composites for High-Performance Flexible Supercapacitors. <i>Chemistry - A European Journal</i> , 2017, 23, 3438-3446.	1.7	166
2	Gallium Nitride Crystals: Novel Supercapacitor Electrode Materials. <i>Advanced Materials</i> , 2016, 28, 3768-3776.	11.1	136
3	Utilizing photocorrosion-recrystallization to prepare a highly stable and efficient CdS/WS ₂ nanocomposite photocatalyst for hydrogen evolution. <i>Applied Catalysis B: Environmental</i> , 2016, 199, 466-472.	10.8	129
4	OD/2D nanocomposite visible light photocatalyst for highly stable and efficient hydrogen generation via recrystallization of CdS on MoS ₂ nanosheets. <i>Nano Energy</i> , 2016, 27, 466-474.	8.2	124
5	Phase junction CdS: High efficient and stable photocatalyst for hydrogen generation. <i>Applied Catalysis B: Environmental</i> , 2018, 221, 179-186.	10.8	111
6	Metal-free boron carbonitride with tunable boron Lewis acid sites for enhanced nitrogen electroreduction to ammonia. <i>Applied Catalysis B: Environmental</i> , 2021, 283, 119622.	10.8	108
7	Effective orientation control of photogenerated carrier separation via rational design of a Ti ₃ C ₂ (TiO ₂)@CdS/MoS ₂ photocatalytic system. <i>Applied Catalysis B: Environmental</i> , 2019, 242, 202-208.	10.8	99
8	Rational modulation of p-n homojunction in P-doped g-C ₃ N ₄ decorated with Ti ₃ C ₂ for photocatalytic overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2019, 259, 118077.	10.8	94
9	Bimetallic NiMoN Nanowires with a Preferential Reactive Facet: An Ultraefficient Bifunctional Electrocatalyst for Overall Water Splitting. <i>ChemSusChem</i> , 2018, 11, 3198-3207.	3.6	91
10	Transition-Metal Oxynitride: A Facile Strategy for Improving Electrochemical Capacitor Storage. <i>Advanced Materials</i> , 2019, 31, e1806088.	11.1	91
11	Band gap-Tunable Porous Borocarbonitride Nanosheets for High Energy-Density Supercapacitors. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 19588-19597.	4.0	86
12	Graphene-Oxide-Assisted Synthesis of GaN Nanosheets as a New Anode Material for Lithium-Ion Battery. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 26631-26636.	4.0	81
13	Self-Supporting GaN Nanowires/Graphite Paper: Novel High-Performance Flexible Supercapacitor Electrodes. <i>Small</i> , 2017, 13, 1603330.	5.2	70
14	Potential of MXene-Based Heterostructures for Energy Conversion and Storage. <i>ACS Energy Letters</i> , 2022, 7, 78-96.	8.8	69
15	Improving the Quality of GaN Crystals by Using Graphene or Hexagonal Boron Nitride Nanosheets Substrate. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 4504-4510.	4.0	67
16	Construction of CdS@Ti ₃ C ₂ @CoO hierarchical tandem p-n heterojunction for boosting photocatalytic hydrogen production in pure water. <i>Chemical Engineering Journal</i> , 2020, 383, 123130.	6.6	67
17	Phase-transformation engineering in MoS ₂ on carbon cloth as flexible binder-free anode for enhancing lithium storage. <i>Journal of Alloys and Compounds</i> , 2017, 716, 112-118.	2.8	66
18	Graphene-Oxide-Assisted Synthesis of Ga ₂ O ₃ Nanosheets/Reduced Graphene Oxide Nanocomposites Anodes for Advanced Alkali-Ion Batteries. <i>ACS Applied Energy Materials</i> , 2018, 1, 4708-4715.	2.5	61

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19	Rational design of Schottky heterojunction with modulating surface electron density for high-performance overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2021, 299, 120660.	10.8	58
20	Large-quantity and continuous preparation of two-dimensional nanosheets. <i>Nanoscale</i> , 2016, 8, 5407-5411.	2.8	52
21	Stable and Reversible Lithium Storage with High Pseudocapacitance in GaN Nanowires. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 2574-2580.	4.0	52
22	Band-matching transformation between CdS and BCNNTs with tunable p-n homojunction for enhanced photocatalytic pure water splitting. <i>Nano Energy</i> , 2020, 69, 104408.	8.2	52
23	A CoP/CdS/WS ₂ tandem heterostructure: a novel photocatalyst for hydrogen evolution without using sacrificial agents. <i>Journal of Materials Chemistry A</i> , 2019, 7, 14638-14645.	5.2	49
24	Oxygen Vacancy Modulation of Bimetallic Oxynitride Anodes toward Advanced Li-ion Capacitors. <i>Advanced Functional Materials</i> , 2020, 30, 2000350.	7.8	48
25	Self-supporting NiSe ₂ @BCNNTs electrode for High-Performance sodium ion batteries. <i>Chemical Engineering Journal</i> , 2022, 437, 135421.	6.6	48
26	Regulating Phase Conversion from Ni ₃ Se ₂ into NiSe in a Bifunctional Electrocatalyst for Overall Water Splitting Enhancement. <i>ChemSusChem</i> , 2019, 12, 2008-2014.	3.6	46
27	Water Invoking Interface Corrosion: An Energy Density Booster for Ni//Zn Battery. <i>Advanced Energy Materials</i> , 2021, 11, 2003268.	10.2	46
28	Elastic sandwich-type GaN/MnO ₂ /MnON composites for flexible supercapacitors with high energy density. <i>Journal of Materials Chemistry A</i> , 2018, 6, 13215-13224.	5.2	45
29	Ultrasonic Ball Milling: A Novel Strategy to Prepare Large Size Ultrathin 2D Materials. <i>Small</i> , 2020, 16, e1906734.	5.2	45
30	Direct growth of freestanding GaN on C-face SiC by HVPE. <i>Scientific Reports</i> , 2015, 5, 10748.	1.6	44
31	Effect of defects on adsorption characteristics of AlN monolayer towards SO ₂ and NO ₂ : Ab initio exposure. <i>Applied Surface Science</i> , 2018, 462, 615-622.	3.1	42
32	A vanadium-nickel oxynitride layer for enhanced electrocatalytic nitrogen fixation in neutral media. <i>Journal of Materials Chemistry A</i> , 2020, 8, 91-96.	5.2	42
33	BCN-Assisted Built-in Electric Field in Heterostructure: An Innovative Path for Broadening the Voltage Window of Aqueous Supercapacitor. <i>Advanced Functional Materials</i> , 2022, 32, 2108843.	7.8	41
34	Shuttle confinement of lithium polysulfides in borocarbonitride nanotubes with enhanced performance for lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 296-304.	5.2	40
35	Graphene-Assisted Exfoliation of Molybdenum Disulfide to Fabricate 2D Heterostructure for Enhancing Lithium Storage. <i>Advanced Materials Interfaces</i> , 2017, 4, 1601187.	1.9	38
36	One-step fabrication of porous GaN crystal membrane and its application in energy storage. <i>Scientific Reports</i> , 2017, 7, 44063.	1.6	38

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37	Hollow submicrospheres of trimetallic selenides for high-capacity lithium and sodium ion batteries. <i>Chemical Engineering Journal</i> , 2021, 405, 126724.	6.6	38
38	Photo-enhanced electrocatalysis of sea-urchin shaped Ni ₃ (VO ₄) ₂ for the hydrogen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2017, 5, 18038-18043.	5.2	37
39	MXene decorated by phosphorus-doped TiO ₂ for photo-enhanced electrocatalytic hydrogen evolution reaction. <i>Renewable Energy</i> , 2021, 170, 858-865.	4.3	37
40	Potassium Hydroxide/Dimethyl Sulfoxide Superbase-Promoted Transition Metal-Free Synthesis of 2-Substituted Benzothiophenes under Visible Light. <i>Advanced Synthesis and Catalysis</i> , 2016, 358, 1202-1207.	2.1	36
41	Type II cuprous oxide/graphitic carbon nitride p-n heterojunctions for enhanced photocatalytic nitrogen fixation. <i>Journal of Catalysis</i> , 2021, 395, 273-281.	3.1	36
42	Quinone-Mediated Trifluoromethylation of Arenes and Heteroarenes with Visible Light. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 334-341.	3.2	33
43	From bulk to porous GaN crystal: precise structural control and its application in ultraviolet photodetectors. <i>Journal of Materials Chemistry C</i> , 2019, 7, 14116-14122.	2.7	33
44	p-n tungsten oxide homojunctions for Vis-NIR light-enhanced electrocatalytic hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2019, 7, 19573-19580.	5.2	31
45	Cathode electrochemically reconstructed V-doped CoO nanosheets for enhanced alkaline hydrogen evolution reaction. <i>Chemical Engineering Journal</i> , 2022, 432, 134331.	6.6	31
46	High performance lithium-ion capacitors based on LiNbO ₃ -arched 3D graphene aerogel anode and BCNNT cathode with enhanced kinetics match. <i>Chemical Engineering Journal</i> , 2020, 396, 125207.	6.6	29
47	Insight into Nickel-Cobalt Oxysulfide Nanowires as Advanced Anode for Sodium-Ion Capacitors. <i>Advanced Energy Materials</i> , 2021, 11, 2100408.	10.2	25
48	Boron carbonitride with tunable B/N Lewis acid/base sites for enhanced electrocatalytic overall water splitting. <i>Nanoscale</i> , 2021, 13, 2849-2854.	2.8	24
49	Hollow Triple-Layer Puff-like HCs@Si@C Composites with High Structural Stability for High-Performance Lithium-Ion Battery. <i>ACS Applied Energy Materials</i> , 2019, 2, 896-904.	2.5	23
50	Waste-yeast biomass as nitrogen/phosphorus sources and carbon template: Environmentally friendly synthesis of N,P-Mo ₂ C nanoparticles on porous carbon matrix for efficient hydrogen evolution. <i>Chinese Chemical Letters</i> , 2022, 33, 3231-3235.	4.8	22
51	Magnetron sputtering tuned σ -back-donation sites over metal oxides for enhanced electrocatalytic nitrogen reduction. <i>Journal of Materials Chemistry A</i> , 2022, 10, 2800-2806.	5.2	22
52	Growth of high quality GaN on a novel designed bonding-thinned template by HVPE. <i>CrystEngComm</i> , 2012, 14, 4777.	1.3	21
53	Lithium-ion capacitor with improved energy density via perfect matching silicon@3D graphene aerogel anode and BCNNTs cathode. <i>Journal of Materials Chemistry A</i> , 2021, 9, 1134-1142.	5.2	21
54	In Situ Growing BCN Nanotubes on Carbon Fibers for Novel High-Temperature Supercapacitor with Excellent Cycling Performance. <i>Small</i> , 2021, 17, e2102899.	5.2	21

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55	Boron Carbonitride Lithium-Ion Capacitors with an Electrostatically Expanded Operating Voltage Window. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 47425-47434.	4.0	20
56	High-aspect-ratio single-crystalline AlN nanowires: Free-catalytic PVT growth and field-emission studies. <i>Journal of Alloys and Compounds</i> , 2019, 794, 171-177.	2.8	18
57	EBSD crystallographic orientation research on strain distribution in hydride vapor phase epitaxy GaN grown on patterned substrate. <i>CrystEngComm</i> , 2013, 15, 7965.	1.3	17
58	Characterization of dislocations in MOCVD-grown GaN using a high temperature annealing method. <i>CrystEngComm</i> , 2014, 16, 2317.	1.3	17
59	Interface engineering in the $\text{BNNS@Ti}_3\text{C}_2$ intercalation structure for enhanced electrocatalytic hydrogen evolution. <i>New Journal of Chemistry</i> , 2019, 43, 8613-8619.	1.4	17
60	Stabilizing Sn anodes nanostructure: Structure optimization and interfacial engineering to boost lithium storage. <i>Electrochimica Acta</i> , 2022, 405, 139789.	2.6	17
61	Phosphorus doping induced the co-construction of sulfur vacancies and heterojunctions in tin disulfide as a durable anode for lithium/sodium-ion batteries. <i>Inorganic Chemistry Frontiers</i> , 2022, 9, 902-913.	3.0	17
62	Phase engineering of CdS optimized by BP with p-n junction: Establishing spatial-gradient charges transmission mode toward efficient photocatalytic water reduction. <i>Applied Catalysis B: Environmental</i> , 2022, 315, 121577.	10.8	17
63	Effect of Temperature Gradient on AlN Crystal Growth by Physical Vapor Transport Method. <i>Crystal Growth and Design</i> , 2019, 19, 6736-6742.	1.4	16
64	Epitaxial growth of a self-separated GaN crystal by using a novel high temperature annealing porous template. <i>CrystEngComm</i> , 2014, 16, 9063-9068.	1.3	15
65	Sn_xP_y Nanoplate/Reduced Graphene Oxide Composites as Anode Materials for Lithium-/Sodium-Ion Batteries. <i>ACS Applied Nano Materials</i> , 2021, 4, 12335-12345.	2.4	15
66	A universal and controllable strategy of constructing transition-metal nitride heterostructures for highly enhanced bifunctional electrocatalysis. <i>New Journal of Chemistry</i> , 2019, 43, 14701-14707.	1.4	14
67	Enhanced performance of supercapacitors by constructing a "mini parallel-plate capacitor" in an electrode with high dielectric constant materials. <i>Journal of Materials Chemistry A</i> , 2020, 8, 16661-16668.	5.2	14
68	Influence of V/III ratio on stress control in GaN grown on different templates by hydride vapour phase epitaxy. <i>RSC Advances</i> , 2014, 4, 21504.	1.7	12
69	Valence modulated nickel oxynitride network as integrated bifunctional electrodes for enhanced energy storage. <i>Journal of Energy Chemistry</i> , 2021, 56, 56-63.	7.1	12
70	$\text{NiMnO}_x/\text{TiN}/\text{CC}$ electrode with a branch"leaf structure: a novel approach to improve the performance of supercapacitors with high mass loading of amorphous metal oxides. <i>Journal of Materials Chemistry A</i> , 2021, 9, 21948-21957.	5.2	12
71	Design of Boron Carbonitrides-Polyaniline (BCN-PANI) assembled supercapacitor with high voltage window. <i>Journal of Colloid and Interface Science</i> , 2022, 626, 544-553.	5.0	12
72	Large Area Stress Distribution in Crystalline Materials Calculated from Lattice Deformation Identified by Electron Backscatter Diffraction. <i>Scientific Reports</i> , 2014, 4, 5934.	1.6	11

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73	Band Structureâ€Controlled Zn _{1-x} Cd _x S Solid Solution for Photocatalytic Hydrogen Production Improvement via Appropriately Enhancing Oxidation Capacity. Solar Rrl, 2021, 5, 2000685.	3.1	11
74	Self-Supported Fluorine-Doped Boron Carbonitride Porous Aerogels for High-Performance Supercapacitors. Energy Technology, 2021, 9, 2100824.	1.8	11
75	A novel porous substrate for the growth of high quality GaN crystals by HVPE. RSC Advances, 2014, 4, 35106-35111.	1.7	10
76	High quality self-separated GaN crystal grown on a novel nanoporous template by HVPE. Scientific Reports, 2018, 8, 3166.	1.6	10
77	Intrinsic Properties of Macroscopically Tuned Gallium Nitride Single-Crystalline Facets for Electrocatalytic Hydrogen Evolution. Chemistry - A European Journal, 2019, 25, 10420-10426.	1.7	8
78	Growth and Stress Analysis of Spontaneous Nucleation c-Plane Bulk AlN Crystals by a PVT Method. Crystal Research and Technology, 2020, 55, 2000118.	0.6	8
79	Growth of Freestanding Gallium Nitride (GaN) Through Polyporous Interlayer Formed Directly During Successive Hydride Vapor Phase Epitaxy (HVPE) Process. Crystals, 2020, 10, 141.	1.0	8
80	Growth of high-quality GaN crystals on a BCN nanosheet-coated substrate by hydride vapor phase epitaxy. CrystEngComm, 2019, 21, 1302-1308.	1.3	7
81	Improve the Photocatalytic Hydrogen Production Using ZnS@ZnO Twin-Junction Structure with Isoelectronic Traps. Advanced Materials Interfaces, 2022, 9, .	1.9	7
82	A photo-responsive electrocatalyst: CdSe quantum dot sensitized WS ₂ nanosheets for hydrogen evolution in neutral solution. New Journal of Chemistry, 2018, 42, 18021-18027.	1.4	6
83	Na _{0.76} V ₆ O ₁₅ @Boron Carbonitride Nanotube Composites as Cathodes for High-Performance Lithium-Ion Capacitors. Crystals, 2022, 12, 597.	1.0	6
84	Crystallographic orientation and strain distribution in AlN seeds grown on 6H-SiC substrates by the PVT method. CrystEngComm, 2021, 23, 4946-4953.	1.3	5
85	Band structure-controlled P-C ₃ N ₄ for photocatalytic water splitting via appropriately decreasing oxidation capacity. Journal of Alloys and Compounds, 2021, 895, 162513.	2.8	5
86	Influence of GaCl carrier gas flow rate on properties of GaN films grown by hydride vapor-phase epitaxy. Journal of Alloys and Compounds, 2011, 509, 6212-6216.	2.8	4
87	High-Quality GaN Crystal Grown on Laser Decomposed GaN-Sapphire Substrate and Its Application in Photodetector. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000380.	0.8	2