Lei Zhang

List of Publications by Year
in descending order

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Version: 2024-02-01

65 papers	3,061 citations	136740 32 h-index	161609 54 g-index
65 all docs	65 docs citations	65 times ranked	3939 citing authors

#	Article	IF	Citations
1	BCNâ€Assisted Builtâ€In Electric Field in Heterostructure: An Innovative Path for Broadening the Voltage Window of Aqueous Supercapacitor. Advanced Functional Materials, 2022, 32, 2108843.	7.8	41
2	Construction of Novel Bimetallic Oxyphosphide as Advanced Anode for Potassium Ion Hybrid Capacitor. Advanced Science, 2022, 9, e2105193.	5.6	14
3	Pores in p-type GaN by annealing under nitrogen atmosphere: formation and photodetector. Journal of Materials Science, 2022, 57, 467-476.	1.7	5
4	Nucleation mechanism of GaN crystal growth on porous GaN/sapphire substrates. CrystEngComm, 2022, 24, 1840-1848.	1.3	6
5	Carbon-quantum-dot-modified ZnS nanospheres for highly efficient electrocatalytic hydrogen evolution. New Journal of Chemistry, 2022, 46, 6622-6629.	1.4	2
6	A perovskite/porous GaN crystal hybrid structure for ultrahigh sensitivity ultraviolet photodetectors. Journal of Materials Chemistry C, 2022, 10, 8321-8328.	2.7	14
7	Na0.76V6O15@Boron Carbonitride Nanotube Composites as Cathodes for High-Performance Lithium-Ion Capacitors. Crystals, 2022, 12, 597.	1.0	6
8	3D porous PTFE membrane filled with PEO-based electrolyte for all solid-state lithiumâ€“sulfur batteries. Rare Metals, 2022, 41, 2834-2843.	3.6	20
9	Design of Boron Carbonitrides-Polyaniline (BCN-PANI) assembled supercapacitor with high voltage window. Journal of Colloid and Interface Science, 2022, 626, 544-553.	5.0	12
10	Design of p-n homojunctions in metal-free carbon nitride photocatalyst for overall water splitting. Chinese Journal of Catalysis, 2021, 42, 501-509.	6.9	61
11	Metal-free boron carbonitride with tunable boron Lewis acid sites for enhanced nitrogen electroreduction to ammonia. Applied Catalysis B: Environmental, 2021, 283, 119622.	10.8	108
12	Ultrawide-bandgap semiconductor AlN crystals: growth and applications. Journal of Materials Chemistry C, 2021, 9, 1852-1873.	2.7	49
13	2D WS₂ co-catalysts induce the growth of CdS and enhance the photocatalytic performance. CrystEngComm, 2021, 23, 4451-4458.	1.3	6
14	Insight into Nickelâ€Cobalt Oxysulfide Nanowires as Advanced Anode for Sodiumâ€Ion Capacitors. Advanced Energy Materials, 2021, 11, 2100408.	10.2	25
15	Type II cuprous oxide/graphitic carbon nitride p-n heterojunctions for enhanced photocatalytic nitrogen fixation. Journal of Catalysis, 2021, 395, 273-281.	3.1	36
16	MXene decorated by phosphorus-doped TiO2 for photo-enhanced electrocatalytic hydrogen evolution reaction. Renewable Energy, 2021, 170, 858-865.	4.3	37
17	Design of Multilayered Porous Aluminum Nitride for Supercapacitor Applications. Energy & Fuels, 2021, 35, 12628-12636.	2.5	16
18	Fabrication of a 2 inch free standing porous GaN crystal film and application in the growth of relaxed crack-free thick GaN. CrystEngComm, 2021, 23, 7245-7252.	1.3	5

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19	Crystallographic orientation and strain distribution in AlN seeds grown on 6Hâ€“SiC substrates by the PVT method. CrystEngComm, 2021, 23, 4946-4953.	1.3	5
20	In Situ Growing BCN Nanotubes on Carbon Fibers for Novel Highâ€Temperature Supercapacitor with Excellent Cycling Performance. Small, 2021, 17, e2102899.	5.2	21
21	Two-dimensional wide band-gap nitride semiconductor GaN and AlN materials: properties, fabrication and applications. Journal of Materials Chemistry C, 2021, 9, 17201-17232.	2.7	40
22	Influence of Different Heater Structures on the Temperature Field of AlN Crystal Growth by Resistance Heating. Materials, 2021, 14, 7441.	1.3	1
23	Construction of CdS@Ti3C2@CoO hierarchical tandem p-n heterojunction for boosting photocatalytic hydrogen production in pure water. Chemical Engineering Journal, 2020, 383, 123130.	6.6	67
24	A vanadiumâ€“nickel oxynitride layer for enhanced electrocatalytic nitrogen fixation in neutral media. Journal of Materials Chemistry A, 2020, 8, 91-96.	5.2	42
25	Shuttle confinement of lithium polysulfides in borocarbonitride nanotubes with enhanced performance for lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2020, 8, 296-304.	5.2	40
26	Boron Carbonitride Lithium-Ion Capacitors with an Electrostatically Expanded Operating Voltage Window. ACS Applied Materials & Interfaces, 2020, 12, 47425-47434.	4.0	20
27	Growth and Stress Analysis of Spontaneous Nucleation câ€Plane Bulk AlN Crystals by a PVT Method. Crystal Research and Technology, 2020, 55, 2000118.	0.6	8
28	Oxygen Vacancy Modulation of Bimetallic Oxynitride Anodes toward Advanced Liâ€Ion Capacitors. Advanced Functional Materials, 2020, 30, 2000350.	7.8	48
29	Demonstration of a 2 kV Al0.85Ga0.15N Schottky Barrier Diode With Improved On-Current and Ideality Factor. IEEE Electron Device Letters, 2020, 41, 457-460.	2.2	13
30	High performance lithium-ion capacitors based on LiNbO3-arched 3D graphene aerogel anode and BCNNT cathode with enhanced kinetics match. Chemical Engineering Journal, 2020, 396, 125207.	6.6	29
31	Perovskite CsPbBr₃ crystals: growth and applications. Journal of Materials Chemistry C, 2020, 8, 6326-6341.	2.7	87
32	pâ€“n tungsten oxide homojunctions for Vis-NIR light-enhanced electrocatalytic hydrogen evolution. Journal of Materials Chemistry A, 2019, 7, 19573-19580.	5.2	31
33	A universal and controllable strategy of constructing transition-metal nitride heterostructures for highly enhanced bifunctional electrocatalysis. New Journal of Chemistry, 2019, 43, 14701-14707.	1.4	14
34	Effect of Temperature Gradient on AlN Crystal Growth by Physical Vapor Transport Method. Crystal Growth and Design, 2019, 19, 6736-6742.	1.4	16
35	Intrinsic Properties of Macroscopically Tuned Gallium Nitride Singleâ€Crystalline Facets for Electrocatalytic Hydrogen Evolution. Chemistry - A European Journal, 2019, 25, 10420-10426.	1.7	8
36	A CoP/CdS/WS₂ pâ€“nâ€“n tandem heterostructure: a novel photocatalyst for hydrogen evolution without using sacrificial agents. Journal of Materials Chemistry A, 2019, 7, 14638-14645.	5.2	49

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37	Carbon-Coated MoSe₂/MXene Hybrid Nanosheets for Superior Potassium Storage. ACS Nano, 2019, 13, 3448-3456.	7.3	372
38	From bulk to porous GaN crystal: precise structural control and its application in ultraviolet photodetectors. Journal of Materials Chemistry C, 2019, 7, 14116-14122.	2.7	33
39	Hollow Triple-Layer Puff-like HCs@Si@C Composites with High Structural Stability for High-Performance Lithium-Ion Battery. ACS Applied Energy Materials, 2019, 2, 896-904.	2.5	23
40	Transitionâ€Metal Oxynitride: A Facile Strategy for Improving Electrochemical Capacitor Storage. Advanced Materials, 2019, 31, e1806088.	11.1	91
41	Regulating Phase Conversion from Ni₃Se₂ into NiSe in a Bifunctional Electrocatalyst for Overall Waterâ€Splitting Enhancement. ChemSusChem, 2019, 12, 2008-2014.	3.6	46
42	Effective orientation control of photogenerated carrier separation via rational design of a Ti3C2(TiO2)@CdS/MoS2 photocatalytic system. Applied Catalysis B: Environmental, 2019, 242, 202-208.	10.8	99
43	High quality self-separated GaN crystal grown on a novel nanoporous template by HVPE. Scientific Reports, 2018, 8, 3166.	1.6	10
44	Stable and Reversible Lithium Storage with High Pseudocapacitance in GaN Nanowires. ACS Applied Materials & Interfaces, 2018, 10, 2574-2580.	4.0	52
45	Phase junction CdS: High efficient and stable photocatalyst for hydrogen generation. Applied Catalysis B: Environmental, 2018, 221, 179-186.	10.8	111
46	Bimetallic NiMoN Nanowires with a Preferential Reactive Facet: An Ultraefficient Bifunctional Electrocatalyst for Overall Water Splitting. ChemSusChem, 2018, 11, 3198-3207.	3.6	91
47	Graphene-Oxide-Assisted Synthesis of Ga₂O₃ Nanosheets/Reduced Graphene Oxide Nanocomposites Anodes for Advanced Alkali-Ion Batteries. ACS Applied Energy Materials, 2018, 1, 4708-4715.	2.5	61
48	Elastic sandwich-type GaN/MnO₂/MnON composites for flexible supercapacitors with high energy density. Journal of Materials Chemistry A, 2018, 6, 13215-13224.	5.2	45
49	Threeâ€Dimensional MoS₂@CNT/RGO Network Composites for Highâ€Performance Flexible Supercapacitors. Chemistry - A European Journal, 2017, 23, 3438-3446.	1.7	166
50	One-step fabrication of porous GaN crystal membrane and its application in energy storage. Scientific Reports, 2017, 7, 44063.	1.6	38
51	Graphene-Oxide-Assisted Synthesis of GaN Nanosheets as a New Anode Material for Lithium-Ion Battery. ACS Applied Materials & Interfaces, 2017, 9, 26631-26636.	4.0	81
52	Photo-enhanced electrocatalysis of sea-urchin shaped Ni₃(VO₄)₂ for the hydrogen evolution reaction. Journal of Materials Chemistry A, 2017, 5, 18038-18043.	5.2	37
53	Utilizing photocorrosion-recrystallization to prepare a highly stable and efficient CdS/WS 2 nanocomposite photocatalyst for hydrogen evolution. Applied Catalysis B: Environmental, 2016, 199, 466-472.	10.8	129
54	Gallium Nitride Crystals: Novel Supercapacitor Electrode Materials. Advanced Materials, 2016, 28, 3768-3776.	11.1	136

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55	Wafer-scale porous GaN single crystal substrates and their application in energy storage. CrystEngComm, 2016, 18, 5149-5154.	1.3	20
56	0D/2D nanocomposite visible light photocatalyst for highly stable and efficient hydrogen generation via recrystallization of CdS on MoS2 nanosheets. Nano Energy, 2016, 27, 466-474.	8.2	124
57	Chiral Porous Metacrystals: Employing Liquid-Phase Epitaxy to Assemble Enantiopure Metalâ€“Organic Nanoclusters into Molecular Framework Pores. ACS Nano, 2016, 10, 977-983.	7.3	83
58	Direct growth of freestanding GaN on C-face SiC by HVPE. Scientific Reports, 2015, 5, 10748.	1.6	44
59	Improving the Quality of GaN Crystals by Using Graphene or Hexagonal Boron Nitride Nanosheets Substrate. ACS Applied Materials & Interfaces, 2015, 7, 4504-4510.	4.0	67
60	A novel porous substrate for the growth of high quality GaN crystals by HVPE. RSC Advances, 2014, 4, 35106-35111.	1.7	10
61	Characterization of dislocations in MOCVD-grown GaN using a high temperature annealing method. CrystEngComm, 2014, 16, 2317.	1.3	17
62	Epitaxial growth of a self-separated GaN crystal by using a novel high temperature annealing porous template. CrystEngComm, 2014, 16, 9063-9068.	1.3	15
63	Large Area Stress Distribution in Crystalline Materials Calculated from Lattice Deformation Identified by Electron Backscatter Diffraction. Scientific Reports, 2014, 4, 5934.	1.6	11
64	EBSD crystallographic orientation research on strain distribution in hydride vapor phase epitaxy GaN grown on patterned substrate. CrystEngComm, 2013, 15, 7965.	1.3	17
65	Improvement of crystal quality HVPE grown GaN on an H3PO4 etched template. CrystEngComm, 2011, 13, 5001.	1.3	30