

Xianghong Niu

List of Publications by Year in descending order

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38
papers

3,351
citations

236925

25
h-index

315739

38
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40
all docs

40
docs citations

40
times ranked

4758
citing authors

#	ARTICLE	IF	CITATIONS
1	POD Nanozyme optimized by charge separation engineering for light/pH activated bacteria catalytic/photodynamic therapy. <i>Signal Transduction and Targeted Therapy</i> , 2022, 7, 86.	17.1	59
2	Explore the underlying mechanism of graphitic C ₃ N ₅ -hosted single-atom catalyst for electrocatalytic nitrogen fixation. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 22035-22044.	7.1	15
3	Sandwich-Polarized Heterojunction: Efficient Charge Separation and Redox Capability Protection for Photocatalytic Overall Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 32018-32025.	8.0	4
4	A new nitrogen fixation strategy: the direct formation of N_2 excited state on metal-free photocatalyst. <i>Journal of Materials Chemistry A</i> , 2021, 9, 6214-6222.	10.3	8
5	Direct formation of interlayer exciton in two-dimensional van der Waals heterostructures. <i>Materials Horizons</i> , 2021, 8, 2208-2215.	12.2	1
6	Ultralong lifetime for fully photogenerated spin-polarized current in two-dimensional ferromagnetic/nonmagnetic semiconductor heterostructures. <i>Physical Review B</i> , 2021, 103, .	3.2	14
7	Photocatalytic Ammonia Synthesis: Mechanistic Insights into N_2 Activation at Oxygen Vacancies under Visible Light Excitation. <i>ACS Catalysis</i> , 2021, 11, 14058-14066.	11.2	35
8	Hybrid Cu ⁰ and Cu ^{x+} as Atomic Interfaces Promote High-Selectivity Conversion of CO ₂ to C ₂ H ₅ OH at Low Potential. <i>Small</i> , 2020, 16, e1901981.	10.0	92
9	Rational Design and Characterization of Direct Z-Scheme Photocatalyst for Overall Water Splitting from Excited State Dynamics Simulations. <i>ACS Catalysis</i> , 2020, 10, 1976-1983.	11.2	120
10	Suppressing photoexcited electron-hole recombination in MoSe ₂ /WSe ₂ lateral heterostructures via interface-coupled state engineering: a time-domain study. <i>Journal of Materials Chemistry A</i> , 2020, 8, 20621-20628.	10.3	18
11	Interlayer coupling prolonged the photogenerated carrier lifetime of few layered Bi ₂ OS ₂ semiconductors. <i>Nanoscale</i> , 2020, 12, 6057-6063.	5.6	18
12	Revealing the pH-Dependent Photoluminescence Mechanism of Graphitic C ₃ N ₄ Quantum Dots. <i>Advanced Theory and Simulations</i> , 2019, 2, 1900074.	2.8	13
13	Two-Dimensional Phosphorene, Arsenene, and Antimonene Quantum Dots: Anomalous Size-Dependent Behaviors of Optical Properties. <i>Journal of Physical Chemistry C</i> , 2019, 123, 25775-25780.	3.1	18
14	Janus MoS ₂ /WSe ₂ heterostructures: a direct Z-scheme photocatalyst for hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2019, 7, 21835-21842.	10.3	119
15	Highly efficient photogenerated electron transfer at a black phosphorus/indium selenide heterostructure interface from ultrafast dynamics. <i>Journal of Materials Chemistry C</i> , 2019, 7, 1864-1870.	5.5	53
16	Greatly Enhanced Photoabsorption and Photothermal Conversion of Antimonene Quantum Dots through Spontaneously Partial Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 17987-17993.	8.0	30
17	Strain-dependent electronic structure and optical properties of monolayer indium selenide: A density functional tight-binding model many-body perturbation theory study. <i>FlatChem</i> , 2019, 15, 100092.	5.6	3
18	Photocatalytic performance of few-layer graphitic C ₃ N ₄ : enhanced by interlayer coupling. <i>Nanoscale</i> , 2019, 11, 4101-4107.	5.6	34

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19	Electronic, photocatalytic, and optical properties of two-dimensional boron pnictides. <i>Journal of Materials Science</i> , 2019, 54, 2278-2288.	3.7	37
20	Ultrathin Semiconducting Bi ₂ Te ₂ S and Bi ₂ Te ₂ Se with High Electron Mobilities. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 487-490.	4.6	56
21	Electronic structures and optical properties of arsenene and antimonene under strain and an electric field. <i>Journal of Materials Chemistry C</i> , 2018, 6, 83-90.	5.5	68
22	Metal-Free Single Atom Catalyst for N ₂ Fixation Driven by Visible Light. <i>Journal of the American Chemical Society</i> , 2018, 140, 14161-14168.	13.7	742
23	Highly Fluorescent and Stable Black Phosphorus Quantum Dots in Water. <i>Small</i> , 2018, 14, e1803132.	10.0	58
24	Bi ₂ OS ₂ : a direct-gap two-dimensional semiconductor with high carrier mobility and surface electron states. <i>Materials Horizons</i> , 2018, 5, 1058-1064.	12.2	45
25	Photo-oxidative Degradation and Protection Mechanism of Black Phosphorus: Insights from Ultrafast Dynamics. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 5034-5039.	4.6	45
26	Efficient Carrier Separation in Graphitic Zinc Oxide and Blue Phosphorus van der Waals Heterostructure. <i>Journal of Physical Chemistry C</i> , 2017, 121, 3648-3653.	3.1	71
27	Photoabsorption Tolerance of Intrinsic Point Defects and Oxidation in Black Phosphorus Quantum Dots. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 161-166.	4.6	21
28	Au ₆ S ₂ monolayer sheets: metallic and semiconducting polymorphs. <i>Materials Horizons</i> , 2017, 4, 1085-1091.	12.2	26
29	An organic-inorganic perovskite ferroelectric with large piezoelectric response. <i>Science</i> , 2017, 357, 306-309.	12.6	744
30	Arsenene-Based Heterostructures: Highly Efficient Bifunctional Materials for Photovoltaics and Photocatalytics. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 42856-42861.	8.0	44
31	Greatly Enhanced Optical Absorption of a Defective MoS ₂ Monolayer through Oxygen Passivation. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 13150-13156.	8.0	59
32	Revealing the underlying absorption and emission mechanism of nitrogen doped graphene quantum dots. <i>Nanoscale</i> , 2016, 8, 19376-19382.	5.6	74
33	Covalent Functionalization of Black Phosphorus from First-Principles. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 4540-4546.	4.6	71
34	Extensive theoretical studies on the low-lying electronic states of BB ⁺ . <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2016, 159, 60-67.	3.9	1
35	The stacking dependent electronic structure and optical properties of bilayer black phosphorus. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 6085-6091.	2.8	54
36	Anomalous Size Dependence of Optical Properties in Black Phosphorus Quantum Dots. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 370-375.	4.6	99

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37	High-Temperature Ferroelectricity and Photoluminescence in a Hybrid Organic-Inorganic Compound: (3-Pyrrolinium)MnCl ₃ . Journal of the American Chemical Society, 2015, 137, 13148-13154.	13.7	246
38	Electronic and Optical Properties of Edge-Functionalized Graphene Quantum Dots and the Underlying Mechanism. Journal of Physical Chemistry C, 2015, 119, 24950-24957.	3.1	136