

# Hongwei Huang

## List of Publications by Year in descending order

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208  
papers

20,293  
citations

8181

76  
h-index

11308

136  
g-index

209  
all docs

209  
docs citations

209  
times ranked

13225  
citing authors

#	ARTICLE	IF	CITATIONS
1	Macroscopic Polarization Enhancement Promoting Photo- and Piezoelectric-Induced Charge Separation and Molecular Oxygen Activation. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 11860-11864.	13.8	850
2	Fabrication of Multiple Heterojunctions with Tunable Visible-Light-Active Photocatalytic Reactivity in BiOBr@BiOI Full-Range Composites Based on Microstructure Modulation and Band Structures. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 482-492.	8.0	671
3	Precursor-reforming protocol to 3D mesoporous g-C <sub>3</sub> N <sub>4</sub> established by ultrathin self-doped nanosheets for superior hydrogen evolution. <i>Nano Energy</i> , 2017, 38, 72-81.	16.0	596
4	The Role of Polarization in Photocatalysis. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 10061-10073.	13.8	590
5	In situ assembly of BiOI@Bi <sub>12</sub> O <sub>17</sub> Cl <sub>2</sub> p-n junction: charge induced unique front-lateral surfaces coupling heterostructure with high exposure of BiOI {001} active facets for robust and nonselective photocatalysis. <i>Applied Catalysis B: Environmental</i> , 2016, 199, 75-86.	20.2	577
6	Three- in- One Oxygen Vacancies: Whole Visible- Spectrum Absorption, Efficient Charge Separation, and Surface Site Activation for Robust CO <sub>2</sub> Photoreduction. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 3880-3884.	13.8	483
7	Piezocatalysis and Piezo- Photocatalysis: Catalysts Classification and Modification Strategy, Reaction Mechanism, and Practical Application. <i>Advanced Functional Materials</i> , 2020, 30, 2005158.	14.9	435
8	Macroscopic Spontaneous Polarization and Surface Oxygen Vacancies Collaboratively Boosting CO <sub>2</sub> Photoreduction on BiOI/O <sub>3</sub> Single Crystals. <i>Advanced Materials</i> , 2020, 32, e1908350.	21.0	372
9	Thickness-Dependent Facet Junction Control of Layered BiOI/O <sub>3</sub> Single Crystals for Highly Efficient CO <sub>2</sub> Photoreduction. <i>Advanced Functional Materials</i> , 2018, 28, 1804284.	14.9	358
10	Bi <sub>2</sub> O <sub>2</sub> (OH)(NO <sub>3</sub> ) as a desirable [Bi <sub>2</sub> O <sub>2</sub> ] <sup>2+</sup> layered photocatalyst: strong intrinsic polarity, rational band structure and {001} active facets co-beneficial for robust photooxidation capability. <i>Journal of Materials Chemistry A</i> , 2015, 3, 24547-24556.	10.3	352
11	Inside- and- Out Semiconductor Engineering for CO <sub>2</sub> Photoreduction: From Recent Advances to New Trends. <i>Small Structures</i> , 2021, 2, 2000061.	12.0	346
12	Surface- Halogenation- Induced Atomic- Site Activation and Local Charge Separation for Superb CO <sub>2</sub> Photoreduction. <i>Advanced Materials</i> , 2019, 31, e1900546.	21.0	343
13	Mediator-free direct Z-scheme photocatalytic system: BiVO <sub>4</sub> /g-C <sub>3</sub> N <sub>4</sub> organic- inorganic hybrid photocatalyst with highly efficient visible-light-induced photocatalytic activity. <i>Dalton Transactions</i> , 2015, 44, 4297-4307.	3.3	326
14	Template-free precursor-surface-etching route to porous, thin g-C <sub>3</sub> N <sub>4</sub> nanosheets for enhancing photocatalytic reduction and oxidation activity. <i>Journal of Materials Chemistry A</i> , 2017, 5, 17452-17463.	10.3	324
15	In situ co-pyrolysis fabrication of CeO <sub>2</sub> /g-C <sub>3</sub> N <sub>4</sub> n-n type heterojunction for synchronously promoting photo-induced oxidation and reduction properties. <i>Journal of Materials Chemistry A</i> , 2015, 3, 17120-17129.	10.3	319
16	Identification of Halogen-Associated Active Sites on Bismuth-Based Perovskite Quantum Dots for Efficient and Selective CO <sub>2</sub> -to-CO Photoreduction. <i>ACS Nano</i> , 2020, 14, 13103-13114.	14.6	282
17	Exceptional Cocatalyst- Free Photo- Enhanced Piezocatalytic Hydrogen Evolution of Carbon Nitride Nanosheets from Strong In-Plane Polarization. <i>Advanced Materials</i> , 2021, 33, e2101751.	21.0	272
18	Visible-light-induced charge transfer pathway and photocatalysis mechanism on Bi semimetal@defective BiOBr hierarchical microspheres. <i>Journal of Catalysis</i> , 2018, 357, 41-50.	6.2	246

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19	Oxygen Vacant Semiconductor Photocatalysts. <i>Advanced Functional Materials</i> , 2021, 31, 2100919.	14.9	242
20	Deep-Ultraviolet Nonlinear Optical Materials: $\text{Na}_2\text{Be}_4\text{B}_4\text{O}_{11}$ and $\text{LiNa}_5\text{Be}_{12}\text{B}_{12}\text{O}_{33}$ . <i>Journal of the American Chemical Society</i> , 2013, 135, 18319-18322.	13.7	234
21	Unprecedented Eighteen-Faceted BiOCl with a Ternary Facet Junction Boosting Cascade Charge Flow and Photo-redox. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 9517-9521.	13.8	230
22	Coupling Piezocatalysis and Photocatalysis in $\text{Bi}_4\text{NbO}_8\text{X}$ (X = Cl, Br) Polar Single Crystals. <i>Advanced Functional Materials</i> , 2020, 30, 1908168.	14.9	225
23	Molecularly Engineered Covalent Organic Frameworks for Hydrogen Peroxide Photosynthesis. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	225
24	Nanostructured Metal Sulfides: Classification, Modification Strategy, and Solar-Driven $\text{CO}_2$ Reduction Application. <i>Advanced Functional Materials</i> , 2021, 31, 2008008.	14.9	221
25	Photocatalysis Enhanced by External Fields. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 16309-16328.	13.8	218
26	Controllable synthesis of multi-responsive ferroelectric layered perovskite-like $\text{Bi}_4\text{Ti}_3\text{O}_{12}$ : Photocatalysis and piezoelectric-catalysis and mechanism insight. <i>Applied Catalysis B: Environmental</i> , 2017, 219, 550-562.	20.2	215
27	Atomic-Level Charge Separation Strategies in Semiconductor-Based Photocatalysts. <i>Advanced Materials</i> , 2021, 33, e2005256.	21.0	215
28	NIR-Vis-UV Light-Responsive Actuator Films of Polymer-Dispersed Liquid Crystal/Graphene Oxide Nanocomposites. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 27494-27501.	8.0	211
29	Recent advances on $\text{Bi}_2\text{WO}_6$ -based photocatalysts for environmental and energy applications. <i>Chinese Journal of Catalysis</i> , 2021, 42, 1413-1438.	14.0	208
30	Synergistic Polarization Engineering on Bulk and Surface for Boosting $\text{CO}_2$ Photoreduction. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 18303-18308.	13.8	197
31	Sulfur Embedded in a Mesoporous Carbon Nanotube Network as a Binder-Free Electrode for High-Performance Lithium-Sulfur Batteries. <i>ACS Nano</i> , 2016, 10, 1300-1308.	14.6	196
32	Unraveling the Mechanisms of Visible Light Photocatalytic NO Purification on Earth-Abundant Insulator-Based Core-Shell Heterojunctions. <i>Environmental Science &amp; Technology</i> , 2018, 52, 1479-1487.	10.0	192
33	2D Graphitic Carbon Nitride for Energy Conversion and Storage. <i>Advanced Functional Materials</i> , 2021, 31, 2102540.	14.9	190
34	Synergy of ferroelectric polarization and oxygen vacancy to promote $\text{CO}_2$ photoreduction. <i>Nature Communications</i> , 2021, 12, 4594.	12.8	180
35	Activation of amorphous $\text{Bi}_2\text{WO}_6$ with synchronous Bi metal and $\text{Bi}_2\text{O}_3$ coupling: Photocatalysis mechanism and reaction pathway. <i>Applied Catalysis B: Environmental</i> , 2018, 232, 340-347.	20.2	179
36	Biomolecule-assisted self-assembly of $\text{CdS}/\text{MoS}_2$ /graphene hollow spheres as high-efficiency photocatalysts for hydrogen evolution without noble metals. <i>Applied Catalysis B: Environmental</i> , 2016, 182, 504-512.	20.2	175

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37	Rational nanostructure design of graphitic carbon nitride for photocatalytic applications. Journal of Materials Chemistry A, 2019, 7, 11584-11612.	10.3	174
38	Facets and defects cooperatively promote visible light plasmonic photocatalysis with Bi nanowires@BiOCl nanosheets. Journal of Catalysis, 2016, 344, 401-410.	6.2	172
39	Z-Scheme g-C <sub>3</sub> N <sub>4</sub> /Bi <sub>4</sub> NbO <sub>8</sub> Cl Heterojunction for Enhanced Photocatalytic Hydrogen Production. ACS Sustainable Chemistry and Engineering, 2018, 6, 16219-16227.	6.7	156
40	A core-satellite structured Z-scheme catalyst Cd <sub>0.5</sub> Zn <sub>0.5</sub> S/BiVO <sub>4</sub> for highly efficient and stable photocatalytic water splitting. Journal of Materials Chemistry A, 2018, 6, 16932-16942.	10.3	154
41	Cooperation of oxygen vacancies and 2D ultrathin structure promoting CO <sub>2</sub> photoreduction performance of Bi <sub>4</sub> Ti <sub>3</sub> O <sub>12</sub> . Science Bulletin, 2020, 65, 934-943.	9.0	151
42	Disulfide-Bridged Organosilica Frameworks: Designed, Synthesis, Redox-Triggered Biodegradation, and Nanobiomedical Applications. Advanced Functional Materials, 2018, 28, 1707325.	14.9	150
43	Ferroelectric polarization promoted bulk charge separation for highly efficient CO <sub>2</sub> photoreduction of SrBi <sub>4</sub> Ti <sub>4</sub> O <sub>15</sub> . Nano Energy, 2019, 56, 840-850.	16.0	144
44	Liquid-Phase Exfoliation into Monolayered BiOBr Nanosheets for Photocatalytic Oxidation and Reduction. ACS Sustainable Chemistry and Engineering, 2017, 5, 10499-10508.	6.7	140
45	A g-C <sub>3</sub> N <sub>4</sub> /Bi <sub>2</sub> O <sub>2</sub> CO <sub>3</sub> composite with high visible-light-driven photocatalytic activity for rhodamine B degradation. Applied Surface Science, 2014, 322, 249-254.	6.1	136
46	In situ crystallization for fabrication of a core-satellite structured BiOBr-CdS heterostructure with excellent visible-light-responsive photoreactivity. Nanoscale, 2015, 7, 11702-11711.	5.6	134
47	Surface sites engineering on semiconductors to boost photocatalytic CO <sub>2</sub> reduction. Nano Energy, 2020, 75, 104959.	16.0	132
48	KCl-mediated dual electronic channels in layered g-C <sub>3</sub> N <sub>4</sub> for enhanced visible light photocatalytic NO removal. Nanoscale, 2018, 10, 8066-8074.	5.6	126
49	The activation of reactants and intermediates promotes the selective photocatalytic NO conversion on electron-localized Sr-intercalated g-C <sub>3</sub> N <sub>4</sub> . Applied Catalysis B: Environmental, 2018, 232, 69-76.	20.2	125
50	First-Principles Evaluation of the Alkali and/or Alkaline Earth Beryllium Borates in Deep Ultraviolet Nonlinear Optical Applications. ACS Photonics, 2015, 2, 1183-1191.	6.6	117
51	Multifunctional Bi <sub>2</sub> O <sub>2</sub> (OH)(NO <sub>3</sub> ) Nanosheets with {001} Active Exposing Facets: Efficient Photocatalysis, Dye-Sensitization, and Piezoelectric-Catalysis. ACS Sustainable Chemistry and Engineering, 2018, 6, 1848-1862.	6.7	117
52	Thin-Layered Photocatalysts. Advanced Functional Materials, 2020, 30, 1910005.	14.9	117
53	Role of transition metal oxides in g-C <sub>3</sub> N <sub>4</sub> -based heterojunctions for photocatalysis and supercapacitors. Journal of Energy Chemistry, 2022, 64, 214-235.	12.9	117
54	Synchronously Achieving Plasmonic Bi Metal Deposition and I <sup>+</sup> Doping by Utilizing BiOIO <sub>3</sub> as the Self-Sacrificing Template for High-Performance Multifunctional Applications. ACS Applied Materials & Interfaces, 2015, 7, 27925-27933.	8.0	113

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55	Ferroelectric polarization and thin-layered structure synergistically promoting CO <sub>2</sub> photoreduction of Bi <sub>2</sub> MoO <sub>6</sub> . Journal of Materials Chemistry A, 2020, 8, 9268-9277.	10.3	113
56	Hollow Carbon Nanospheres with Tunable Hierarchical Pores for Drug, Gene, and Photothermal Synergistic Treatment. Small, 2017, 13, 1602592.	10.0	111
57	Bi <sub>4</sub> NbO <sub>8</sub> Cl {001} nanosheets coupled with g-C <sub>3</sub> N <sub>4</sub> as 2D/2D heterojunction for photocatalytic degradation and CO <sub>2</sub> reduction. Journal of Hazardous Materials, 2020, 381, 121159.	12.4	111
58	Fabrication and enhanced dielectric properties of graphene/polyvinylidene fluoride functional hybrid films with a polyaniline interlayer. Journal of Materials Chemistry A, 2013, 1, 884-890.	10.3	110
59	Achieving significantly enhanced dielectric performance of reduced graphene oxide/polymer composite by covalent modification of graphene oxide surface. Carbon, 2015, 94, 590-598.	10.3	108
60	Ultrahigh Photocatalytic CO <sub>2</sub> Reduction Efficiency and Selectivity Manipulation by Single Tungsten Atom Oxide at the Atomic Step of TiO <sub>2</sub> . Advanced Materials, 2022, 34, e2109074.	21.0	107
61	A one-step hydrothermal preparation strategy for layered BiO <sub>4</sub> /Bi <sub>2</sub> WO <sub>6</sub> heterojunctions with enhanced visible light photocatalytic activities. RSC Advances, 2014, 4, 5561.	3.6	105
62	New insights into how Pd nanoparticles influence the photocatalytic oxidation and reduction ability of g-C <sub>3</sub> N <sub>4</sub> nanosheets. Catalysis Science and Technology, 2016, 6, 6448-6458.	4.1	101
63	Photomechanical Motion of Liquid-Crystalline Fibers Bending Away from a Light Source. Macromolecules, 2017, 50, 8317-8324.	4.8	100
64	Ferroelectric spontaneous polarization steering charge carriers migration for promoting photocatalysis and molecular oxygen activation. Journal of Colloid and Interface Science, 2018, 509, 113-122.	9.4	100
65	Layered bismuth-based photocatalysts. Coordination Chemistry Reviews, 2022, 463, 214515.	18.8	99
66	Photocatalytic Oxygen Evolution from Water Splitting. Advanced Science, 2021, 8, 2002458.	11.2	98
67	Fabrication and dielectric properties of oriented polyvinylidene fluoride nanocomposites incorporated with graphene nanosheets. Materials Chemistry and Physics, 2012, 134, 867-874.	4.0	96
68	Photomechanical response of polymer-dispersed liquid crystals/graphene oxide nanocomposites. Journal of Materials Chemistry C, 2014, 2, 8501-8506.	5.5	96
69	A highly sensitive hybridized soft piezophotocatalyst driven by gentle mechanical disturbances in water. Nano Energy, 2018, 53, 513-523.	16.0	95
70	Bismuth oxychloride homogeneous phase junction BiOCl/Bi <sub>12</sub> O <sub>17</sub> Cl <sub>2</sub> with unselectively efficient photocatalytic activity and mechanism insight. Applied Surface Science, 2017, 420, 303-312.	6.1	90
71	Non-noble metal Bi deposition by utilizing Bi <sub>2</sub> WO <sub>6</sub> as the self-sacrificing template for enhancing visible light photocatalytic activity. Applied Surface Science, 2017, 391, 491-498.	6.1	90
72	Facet, Junction and Electric Field Engineering of Bismuth-Based Materials for Photocatalysis. ChemCatChem, 2018, 10, 4477-4496.	3.7	89

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73	Achieving Enhanced UV and Visible Light Photocatalytic Activity for Ternary Ag/AgBr/BiOIO <sub>3</sub> : Decomposition for Diverse Industrial Contaminants with Distinct Mechanisms and Complete Mineralization Ability. ACS Sustainable Chemistry and Engineering, 2017, 5, 7777-7791.	6.7	88
74	Photocatalysis-Assisted Co <sub>3</sub> O <sub>4</sub> /g-C <sub>3</sub> N <sub>4</sub> p-n Junction All-Solid-State Supercapacitors: A Bridge between Energy Storage and Photocatalysis. Advanced Science, 2020, 7, 2001939.	11.2	83
75	BiOBr <sub>0.75</sub> I <sub>0.25</sub> /BiOIO <sub>3</sub> as a Novel Heterojunctional Photocatalyst with Superior Visible-Light-Driven Photocatalytic Activity in Removing Diverse Industrial Pollutants. ACS Sustainable Chemistry and Engineering, 2017, 5, 3897-3905.	6.7	82
76	Nature-Derived Approach to Oxygen and Chlorine Dual-Vacancies for Efficient Photocatalysis and Photoelectrochemistry. ACS Sustainable Chemistry and Engineering, 2018, 6, 2395-2406.	6.7	80
77	Coupling ferroelectric polarization and anisotropic charge migration for enhanced CO <sub>2</sub> photoreduction. Applied Catalysis B: Environmental, 2021, 284, 119709.	20.2	74
78	Macroscopic Polarization Enhancement Promoting Photo- and Piezoelectric-Induced Charge Separation and Molecular Oxygen Activation. Angewandte Chemie, 2017, 129, 12022-12026.	2.0	73
79	Pyroelectric catalysis. Nano Energy, 2020, 78, 105371.	16.0	73
80	Highly enhanced visible-light photocatalytic NO <sub>x</sub> purification and conversion pathway on self-structurally modified g-C <sub>3</sub> N <sub>4</sub> nanosheets. Science Bulletin, 2018, 63, 609-620.	9.0	72
81	Self-sacrifice transformation for fabrication of type-I and type-II heterojunctions in hierarchical BiOylz/g-C <sub>3</sub> N <sub>4</sub> for efficient visible-light photocatalysis. Applied Surface Science, 2019, 470, 1101-1110.	6.1	72
82	Chemically Bonded Fe <sub>2</sub> O <sub>3</sub> /Bi <sub>4</sub> MO <sub>8</sub> Cl Dot-on-Plate Z-scheme Junction with Strong Internal Electric Field for Selective Photo-oxidation of Aromatic Alcohols. Angewandte Chemie - International Edition, 2022, 61, .	13.8	72
83	BiPO <sub>4</sub> /reduced graphene oxide composites photocatalyst with high photocatalytic activity. Applied Surface Science, 2014, 319, 272-277.	6.1	71
84	Fabrication of Heterogeneous-Phase Solid-Solution Promoting Band Structure and Charge Separation for Enhancing Photocatalytic CO <sub>2</sub> Reduction: A Case of Zn <sub>x</sub> Ca <sub>1-x</sub> In <sub>2</sub> S <sub>4</sub> . ACS Applied Materials & Interfaces, 2017, 9, 27773-27783.	8.0	68
85	Tunable 3D hierarchical graphene-BiOI nanoarchitectures: their in situ preparation, and highly improved photocatalytic performance and photoelectrochemical properties under visible light irradiation. RSC Advances, 2014, 4, 49386-49394.	3.6	67
86	Boosting Zn-ion adsorption in cross-linked N/P co-incorporated porous carbon nanosheets for the zinc-ion hybrid capacitor. Journal of Materials Chemistry A, 2021, 9, 16565-16574.	10.3	67
87	Interlayer-I-doped BiOIO <sub>3</sub> nanoplates with an optimized electronic structure for efficient visible light photocatalysis. Chemical Communications, 2016, 52, 8243-8246.	4.1	66
88	Highly porous honeycomb manganese oxide@carbon fibers core-shell nanocables for flexible supercapacitors. Nano Energy, 2015, 13, 47-57.	16.0	65
89	Pivotal roles of artificial oxygen vacancies in enhancing photocatalytic activity and selectivity on Bi <sub>2</sub> O <sub>2</sub> CO <sub>3</sub> nanosheets. Chinese Journal of Catalysis, 2019, 40, 620-630.	14.0	65
90	Z-scheme g-C <sub>3</sub> N <sub>4</sub> /Bi <sub>2</sub> O <sub>2</sub> [BO <sub>2</sub> (OH)] heterojunction for enhanced photocatalytic CO <sub>2</sub> reduction. Journal of Colloid and Interface Science, 2020, 568, 139-147.	9.4	65

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91	Single Precursor Mediated-Synthesis of Bi Semimetal Deposited N-Doped (BiO) <sub>2</sub> CO <sub>3</sub> Superstructures for Highly Promoted Photocatalysis. ACS Sustainable Chemistry and Engineering, 2016, 4, 2969-2979.	6.7	64
92	Novel g-C <sub>3</sub> N <sub>4</sub> /BiO <sub>4</sub> heterojunction photocatalysts: synthesis, characterization and enhanced visible-light-responsive photocatalytic activity. RSC Advances, 2014, 4, 42716-42722.	3.6	62
93	Surface engineered 2D materials for photocatalysis. Chemical Communications, 2020, 56, 11000-11013.	4.1	61
94	Removal of organic materials from TNT red water by Bamboo Charcoal adsorption. Chemical Engineering Journal, 2012, 193-194, 39-49.	12.7	60
95	Visible-Light-Responsive Sill@n-Structured Mixed-Cationic CdBiO <sub>2</sub> Br Nanosheets: Layer Structure Design Promoting Charge Separation and Oxygen Activation Reactions. Journal of Physical Chemistry C, 2018, 122, 2661-2672.	3.1	60
96	Vertically Aligned Nanosheets-Array-like BiOI Homojunction: Three-in-One Promoting Photocatalytic Oxidation and Reduction Abilities. ACS Sustainable Chemistry and Engineering, 2017, 5, 5253-5264.	6.7	59
97	Graphene for Energy Storage and Conversion: Synthesis and Interdisciplinary Applications. Electrochemical Energy Reviews, 2020, 3, 395-430.	25.5	59
98	High-performance asymmetrical supercapacitor composed of rGO-enveloped nickel phosphite hollow spheres and N/S co-doped rGO aerogel. Nano Research, 2018, 11, 1651-1663.	10.4	58
99	Solar Energy Catalysis. Angewandte Chemie - International Edition, 2022, 61, .	13.8	58
100	Rational Design of Coordination Bond Connected Metal Organic Frameworks/MXene Hybrids for Efficient Solar Water Splitting. Advanced Functional Materials, 2022, 32, .	14.9	56
101	A novel apatite-based warm white emitting phosphor Ba <sub>3</sub> GdK(PO <sub>4</sub> ) <sub>3</sub> F:Tb <sup>3+</sup> , Eu <sup>3+</sup> with efficient energy transfer for w-LEDs. RSC Advances, 2015, 5, 68099-68108.	3.6	55
102	Organic-inorganic hybrid photocatalyst g-C <sub>3</sub> N <sub>4</sub> /Ag <sub>2</sub> CO <sub>3</sub> with highly efficient visible-light-active photocatalytic activity. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 467, 188-194.	4.7	54
103	Dendritic porous yolk@ordered mesoporous shell structured heterogeneous nanocatalysts with enhanced stability. Journal of Materials Chemistry A, 2017, 5, 21560-21569.	10.3	53
104	Black phosphorus-based heterostructures for photocatalysis and photoelectrochemical water splitting. Journal of Energy Chemistry, 2022, 67, 745-779.	12.9	51
105	An All-Solid-State Flexible Piezoelectric High-k Film Functioning as Both a Generator and In Situ Storage Unit. Advanced Functional Materials, 2015, 25, 7029-7037.	14.9	50
106	Pt quantum dots deposited on N-doped (BiO) <sub>2</sub> CO <sub>3</sub> : enhanced visible light photocatalytic NO removal and reaction pathway. Catalysis Science and Technology, 2017, 7, 1324-1332.	4.1	50
107	Bifunctional Hydrogen Production and Storage on OD-1D Heterojunction of Cd <sub>0.5</sub> Zn <sub>0.5</sub> S@Halloysites. Advanced Functional Materials, 2019, 29, 1903825.	14.9	50
108	Wettability behavior of special microscale ZnO nail-coated mesh films for oil-water separation. Journal of Colloid and Interface Science, 2015, 458, 79-86.	9.4	48

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109	Exploring the photocatalysis mechanism on insulators. <i>Applied Catalysis B: Environmental</i> , 2017, 219, 450-458.	20.2	48
110	Bandgaps in the deep ultraviolet borate crystals: Prediction and improvement. <i>Applied Physics Letters</i> , 2013, 102, 231904.	3.3	47
111	The Role of Polarization in Photocatalysis. <i>Angewandte Chemie</i> , 2019, 131, 10164-10176.	2.0	47
112	Mixed-calcination synthesis of Bi <sub>2</sub> MoO <sub>6</sub> /g-C <sub>3</sub> N <sub>4</sub> heterojunction with enhanced visible-light-responsive photoreactivity for RhB degradation and photocurrent generation. <i>Materials Research Bulletin</i> , 2016, 83, 172-178.	5.2	46
113	In-depth insight into facet-dependent charge movement behaviors and photo-redox catalysis: A case of {0 0 1} and {0 1 0} facets BiOCl. <i>Journal of Colloid and Interface Science</i> , 2017, 508, 174-183.	9.4	45
114	Three Oxygen Vacancies: Whole Visible Spectrum Absorption, Efficient Charge Separation, and Surface Site Activation for Robust CO <sub>2</sub> Photoreduction. <i>Angewandte Chemie</i> , 2019, 131, 3920-3924.	2.0	45
115	Energy and environmental catalysis driven by stress and temperature-variation. <i>Journal of Materials Chemistry A</i> , 2021, 9, 12400-12432.	10.3	44
116	Readily attainable spongy foam photocatalyst for promising practical photocatalysis. <i>Applied Catalysis B: Environmental</i> , 2017, 208, 75-81.	20.2	43
117	Effect of physiochemical properties in biomass-derived materials caused by different synthesis methods and their electrochemical properties in supercapacitors. <i>Journal of Materials Chemistry A</i> , 2021, 9, 12521-12552.	10.3	43
118	Band gap engineering design for construction of energy-levels well-matched semiconductor heterojunction with enhanced visible-light-driven photocatalytic activity. <i>RSC Advances</i> , 2014, 4, 41219-41227.	3.6	42
119	Electrochemical DNA probe for Hg <sup>2+</sup> detection based on a triple-helix DNA and Multistage Signal Amplification Strategy. <i>Biosensors and Bioelectronics</i> , 2016, 86, 907-912.	10.1	42
120	Amorphous red phosphorus nanosheets anchored on graphene layers as high performance anodes for lithium ion batteries. <i>Nanoscale</i> , 2017, 9, 18552-18560.	5.6	41
121	Visible-Light-Responsive Chalcogenide Photocatalyst Ba <sub>2</sub> ZnSe <sub>3</sub> : Crystal and Electronic Structure, Thermal, Optical, and Photocatalytic Activity. <i>Inorganic Chemistry</i> , 2016, 55, 12783-12790.	4.0	40
122	Coupling of solid-solution and heterojunction in a 2D-1D core-shell-like BiOCl <sub>0.5</sub> IO <sub>0.5</sub> /Bi <sub>5</sub> O <sub>7</sub> I hierarchy for promoting full-spectrum photocatalysis and molecular oxygen activation. <i>Journal of Colloid and Interface Science</i> , 2017, 504, 257-267.	9.4	40
123	Hydrothermal synthesis, nonlinear optical property and photocatalytic activity of a non-centrosymmetric AgIO <sub>3</sub> photocatalyst under UV and visible light irradiation. <i>Solid State Sciences</i> , 2015, 46, 37-42.	3.2	38
124	The preparation of Fe doped triclinic-hexagonal phase heterojunction WO <sub>3</sub> film and its enhanced photocatalytic reduction of Cr (VI). <i>Materials Research Bulletin</i> , 2019, 109, 168-174.	5.2	38
125	Construction of PDDA functionalized black phosphorus nanosheets/BiOI Z-scheme photocatalyst with enhanced visible light photocatalytic activity. <i>Journal of Colloid and Interface Science</i> , 2020, 576, 34-46.	9.4	37
126	Piezocatalytic and Photocatalytic Hydrogen Peroxide Evolution of Sulfide Solid Solution Nano-Branched from Pure Water and Air. <i>Small</i> , 2022, 18, e2200914.	10.0	37



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127	Fe( $\text{BiO}$ ) <sub>2</sub> CO <sub>3</sub> cluster-grafted (BiO) <sub>2</sub> CO <sub>3</sub> superstructures: in situ DRIFTS investigation on IFCT-enhanced visible light photocatalytic NO oxidation. <i>Environmental Science: Nano</i> , 2017, 4, 604-612.	4.3	36
128	Hydroxyl radicals and sulfate radicals synergistically boosting the photocatalytic and mineralization ability of 1D-2D Bi <sub>5</sub> O <sub>7</sub> /NiFe-LDH heterojunction. <i>Applied Surface Science</i> , 2021, 540, 148237.	6.1	36
129	Systematic study of dye loaded small mesoporous silica nanoparticles for detecting latent fingerprints on various substrates. <i>Journal of Porous Materials</i> , 2017, 24, 13-20.	2.6	35
130	Junction Engineering for Photocatalytic and Photoelectrocatalytic CO <sub>2</sub> Reduction. <i>Solar Rrl</i> , 2021, 5, 2000430.	5.8	35
131	Combined Photothermal and Surface-Enhanced Raman Spectroscopy Effect from Spiky Noble Metal Nanoparticles Wrapped within Graphene-Polymer Layers: Using Layer-by-layer Modified Reduced Graphene Oxide as Reactive Precursors. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 19353-19361.	8.0	34
132	Ba <sub>2</sub> AsGaSe <sub>5</sub> : A New Quaternary Selenide with the Novel [AsGaSe <sub>5</sub> ] <sup>4-</sup> Cluster and Interesting Photocatalytic Properties. <i>Inorganic Chemistry</i> , 2015, 54, 9785-9789.	4.0	33
133	Bismuth-based Z-scheme photocatalytic systems for solar energy conversion. <i>Materials Chemistry Frontiers</i> , 2021, 5, 2484-2505.	5.9	33
134	Integrating Covalent Organic Framework with Transition Metal Phosphide for Noble-Metal-Free Visible-Light-Driven Photocatalytic H <sub>2</sub> Evolution. <i>Small</i> , 2022, 18, .	10.0	33
135	Sandwich-type amperometric immunosensor using functionalized magnetic graphene loaded gold and silver core-shell nanocomposites for the detection of Carcinoembryonic antigen. <i>Journal of Electroanalytical Chemistry</i> , 2017, 795, 1-9.	3.8	32
136	Two Bi-based phosphate photocatalysts: Crystal structure, optical property and photocatalytic activity. <i>Inorganic Chemistry Communication</i> , 2014, 44, 46-49.	3.9	31
137	Broadband antireflective superhydrophobic self-cleaning coatings based on novel dendritic porous particles. <i>RSC Advances</i> , 2016, 6, 7864-7871.	3.6	31
138	Strategies for Optimizing the Photocatalytic Water-Splitting Performance of Metal-Organic Framework-Based Materials. <i>Small Science</i> , 2021, 1, 2100060.	9.9	31
139	Size-dependent selectivity and activity of CO <sub>2</sub> photoreduction over black nano-titanias grown on dendritic porous silica particles. <i>Applied Catalysis B: Environmental</i> , 2019, 255, 117768.	20.2	30
140	Carbon-coated MoO <sub>2</sub> nanoclusters anchored on RGO sheets as high-performance electrodes for symmetric supercapacitors. <i>Dalton Transactions</i> , 2019, 48, 285-295.	3.3	28
141	Layer structured materials for ambient nitrogen fixation. <i>Coordination Chemistry Reviews</i> , 2022, 460, 214468.	18.8	28
142	Achieving significantly enhanced visible-light photocatalytic efficiency using a polyelectrolyte: the composites of exfoliated titania nanosheets, graphene, and poly(diallyl-dimethyl-ammonium chloride). <i>Nanoscale</i> , 2015, 7, 14002-14009.	5.6	27
143	Efficient piezocatalytic H <sub>2</sub> O <sub>2</sub> production of atomic-level thickness Bi <sub>4</sub> Ti <sub>3</sub> O <sub>12</sub> nanosheets with surface oxygen vacancy. <i>Chemical Engineering Journal</i> , 2022, 431, 133930.	12.7	27
144	Enhanced photocatalytic activities on Bi <sub>2</sub> O <sub>2</sub> CO <sub>3</sub> /ZnWO <sub>4</sub> nanocomposites. <i>Journal of Materials Research</i> , 2014, 29, 641-648.	2.6	26

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145	Biomolecule-assisted synthesis of defect-mediated Cd <sub>1-x</sub> Zn <sub>x</sub> S/MoS <sub>2</sub> /graphene hollow spheres for highly efficient hydrogen evolution. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 16208-16215.	2.8	26
146	pH-Dependence in facet-selective photo-deposition of metals and metal oxides on semiconductor particles. <i>Journal of Materials Chemistry A</i> , 2018, 6, 7500-7508.	10.3	26
147	Synergetic Piezo-Photocatalytic Hydrogen Evolution on Cd <sub>x</sub> Zn <sub>1-x</sub> S Solid-Solution 1D Nanorods. <i>Small</i> , 2022, 18, e2106420.	10.0	26
148	Novel yolk-shell polymer/carbon@Au nanocomposites by using dendrimer-like mesoporous silica nanoparticles as hard template. <i>Journal of Alloys and Compounds</i> , 2017, 700, 83-91.	5.5	25
149	OD to 3D controllable nanostructures of BiOBr via a facile and fast room-temperature strategy. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 603, 125233.	4.7	25
150	Mechanism Insight into an Unprecedented Dual Series-Parallel Photocharge Separation in Quaternary Cu <sub>2</sub> O Facet Junctions. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	24
151	All-in-one polarized Cd/CdS/halloysite ferroelectric hybrid for exceptional photocatalytic hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2021, 9, 17936-17944.	10.3	22
152	Edge-rich atomic-layered BiOBr quantum dots for photocatalytic molecular oxygen activation. <i>Chemical Engineering Journal</i> , 2022, 445, 136776.	12.7	22
153	Surface cationic and anionic dual vacancies enhancing photocatalytic activity of Bi <sub>2</sub> WO <sub>6</sub> . <i>Applied Surface Science</i> , 2022, 602, 154311.	6.1	22
154	Simultaneous Pd <sup>2+</sup> doping and Pd metal deposition on (BiO) <sub>2</sub> CO <sub>3</sub> microspheres for enhanced and stable visible light photocatalysis. <i>Applied Catalysis A: General</i> , 2016, 510, 161-170.	4.3	21
155	Unprecedented Eighteen-Faceted BiOCl with a Ternary Facet Junction Boosting Cascade Charge Flow and Photo-redox. <i>Angewandte Chemie</i> , 2019, 131, 9617-9621.	2.0	21
156	Synergistic effects of B/S co-doped spongy-like hierarchically porous carbon for a high performance zinc-ion hybrid capacitor. <i>Nanoscale</i> , 2022, 14, 2004-2012.	5.6	21
157	High-surface energy enables efficient and stable photocatalytic toluene degradation via the suppression of intermediate byproducts. <i>Catalysis Science and Technology</i> , 2019, 9, 2952-2959.	4.1	20
158	Photocatalysis Enhanced by External Fields. <i>Angewandte Chemie</i> , 2021, 133, 16445-16464.	2.0	20
159	Facile synthesis of mesoporous organosilica nanobowls with bridged silsesquioxane framework by one-pot growth and dissolution mechanism. <i>Journal of Colloid and Interface Science</i> , 2018, 528, 379-388.	9.4	19
160	Synergistic Polarization Engineering on Bulk and Surface for Boosting CO <sub>2</sub> Photoreduction. <i>Angewandte Chemie</i> , 2021, 133, 18451-18456.	2.0	19
161	A sandwich-type electrochemical immunosensor based on the biotin-streptavidin-biotin structure for detection of human immunoglobulin G. <i>Scientific Reports</i> , 2016, 6, 22694.	3.3	18
162	Enhanced visible photocatalytic activity of nitrogen doped single-crystal-like TiO <sub>2</sub> by synergistic treatment with urea and mixed nitrates. <i>Journal of Materials Research</i> , 2017, 32, 737-747.	2.6	18

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163	Room-temperature controllable synthesis of Bi <sub>5</sub> O <sub>7</sub> I nanostrips for improved photocatalytic activity. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 594, 124642.	4.7	18
164	Removal of organic pollutants from red water by magnetic-activated coke. <i>Desalination and Water Treatment</i> , 2015, 54, 2710-2722.	1.0	17
165	Free-standing few-layered graphene oxide films: selective, steady and lasting permeation of organic molecules with adjustable speeds. <i>Nanoscale</i> , 2016, 8, 2003-2010.	5.6	17
166	Enhancing H <sub>2</sub> evolution and molecular oxygen activation via dye sensitized BiOBr <sub>0.9</sub> I <sub>0.1</sub> under visible light. <i>Journal of Colloid and Interface Science</i> , 2020, 580, 1-10.	9.4	17
167	Facet-selective charge separation in two-dimensional bismuth-based photocatalysts. <i>Catalysis Science and Technology</i> , 2021, 11, 3659-3675.	4.1	17
168	Plasmon induced Au particle and surface oxidation co-decorated Bi <sub>2</sub> O <sub>3</sub> heteronanostructures with highly promoted photocatalysis and photoelectrochemical properties. <i>RSC Advances</i> , 2015, 5, 81078-81086.	3.6	16
169	BaAu <sub>2</sub> S <sub>2</sub> : A Au-Based Intrinsic Photocatalyst for High-Performance Visible-Light Photocatalysis. <i>Inorganic Chemistry</i> , 2017, 56, 5173-5181.	4.0	16
170	Controllable synthesis, characterization and photocatalytic performance of four kinds of bismuth-based materials. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019, 568, 419-428.	4.7	16
171	Two layered Bi-based borate photocatalysts MBi <sub>2</sub> B <sub>2</sub> O <sub>7</sub> (M <sup>2+</sup> =Ca, Sr) for photocatalytic degradation and oxygen activation. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 584, 123994.	4.7	16
172	Nano-Au-modified TiO <sub>2</sub> grown on dendritic porous silica particles for enhanced CO <sub>2</sub> photoreduction. <i>Microporous and Mesoporous Materials</i> , 2021, 310, 110635.	4.4	16
173	Heterojunction and ferroelectric polarization co-promoting photocatalytic activity. <i>Applied Surface Science</i> , 2022, 587, 152852.	6.1	16
174	BiOI/Bi <sub>2</sub> O <sub>2</sub> [BO <sub>2</sub> (OH)] heterojunction with boosted photocatalytic degradation performance for diverse pollutants under visible light irradiation. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 603, 125184.	4.7	15
175	Molecularly Engineered Covalent Organic Frameworks for Hydrogen Peroxide Photosynthesis. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	15
176	Sn <sub>2</sub> Si <sub>4</sub> , synthesis, structure, optical and electronic properties. <i>Optical Materials</i> , 2015, 47, 379-385.	3.6	14
177	Bi <sub>2</sub> O <sub>2</sub> (OH)NO <sub>3</sub> /AgI heterojunction with enhanced UV and visible-light responsive photocatalytic activity and mechanism investigation. <i>Materials Research Bulletin</i> , 2018, 108, 120-129.	5.2	14
178	Versatile Titanates: Classification, Property, Preparation, and Sustainable Energy Catalysis. <i>Advanced Functional Materials</i> , 2022, 32, 2108350.	14.9	14
179	One-pot synthesis of Ni(OH) <sub>2</sub> flakes embeded in highly-conductive carbon nanotube/graphene hybrid framework as high performance electrodes for supercapacitors. <i>Materials Letters</i> , 2018, 213, 131-134.	2.6	13
180	Pickering emulsion-embedded hierarchical solid-liquid hydrogel spheres for static and flow photocatalysis. <i>Journal of Colloid and Interface Science</i> , 2021, 589, 587-596.	9.4	13

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181	Pressure-Driven Two-Step Second-Harmonic Generation Switching in BiOIO <sub>3</sub> . Angewandte Chemie - International Edition, 2022, 61, .	13.8	13
182	Metal-induced oxygen vacancies on Bi <sub>2</sub> WO <sub>6</sub> for efficient CO <sub>2</sub> photoreduction. Science China Materials, 2022, 65, 3497-3503.	6.3	13
183	Zinc-Ion Hybrid Capacitor with High Energy Density Constructed by Bamboo Shavings Derived Spongy-Like Porous Carbon. ChemistrySelect, 2021, 6, 6937-6943.	1.5	12
184	Ferroelectrics in Photocatalysis. Chemistry - A European Journal, 2022, 28, e202103975.	3.3	11
185	Solar Energy Catalysis. Angewandte Chemie, 2022, 134, .	2.0	11
186	Synthesis of titanium dioxide-reduced graphite oxide nanocomposites and their photocatalytic performance. Micro and Nano Letters, 2013, 8, 483-486.	1.3	9
187	Structure and Characterization of a Zero-Dimensional Alkali Tin Dihalides Compound Cs <sub>3</sub> Sn <sub>3</sub> F <sub>2</sub> Cl <sub>7</sub> with the [Sn <sub>2</sub> F <sub>2</sub> Cl <sub>4</sub> ] <sup>2+</sup> Clusters. Inorganic Chemistry, 2017, 56, 3081-3086.	4.0	9
188	Mn <sub>3</sub> O <sub>4</sub> nanoparticles embedded in 3D reduced graphene oxide network as anode for high-performance lithium ion batteries. Journal of Materials Science: Materials in Electronics, 2017, 28, 14919-14927.	2.2	9
189	Molten-salt fabrication of (N,F)-codoped single-crystal-like titania with high exposure of (001) crystal facet for highly efficient degradation of methylene blue under visible light irradiation. Journal of Materials Research, 2018, 33, 1411-1421.	2.6	9
190	Ligand Functionalization in Zirconium-Based Metal-Organic Frameworks for Enhanced Carbon Dioxide Fixation. Advanced Sustainable Systems, 2020, 4, 2000098.	5.3	9
191	Integrated Full-Spectrum Solar Energy Catalysis for Zero-Emission Ethylene Production from Bioethanol. Advanced Functional Materials, 2022, 32, 2110026.	14.9	9
192	Core-shell-like BiOBr@BiOBr homojunction for enhanced photocatalysis. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 644, 128829.	4.7	9
193	A new congruent-melting double phosphate PbCd(PO <sub>3</sub> ) <sub>4</sub> with photocatalytic activity. Journal of Alloys and Compounds, 2016, 689, 599-605.	5.5	8
194	Smart Design of Small Pd Nanoparticles Confined in Hollow Carbon Nanospheres with Large Center-Radial Mesopores. European Journal of Inorganic Chemistry, 2017, 2017, 2517-2524.	2.0	8
195	Chemically Bonded Fe <sub>2</sub> O <sub>3</sub> /Bi <sub>4</sub> MO <sub>8</sub> Cl Dot-on-Plate Z-Scheme Junction with Strong Internal Electric Field for Selective Photooxidation of Aromatic Alcohols. Angewandte Chemie, 2022, 134, .	2.0	8
196	Analysis of hazardous organic residues from sodium hydrosulfite industry and utilization as raw materials in a novel solid lubricant production. Journal of Hazardous Materials, 2011, 198, 65-69.	12.4	7
197	Defect-triggered catalysis with multiple reactive species over bismuth oxyhalides in the dark. Applied Surface Science, 2021, 567, 150765.	6.1	7
198	Coupling morphology control and surface I grafting for boosting the photocatalytic activity of Bi <sub>2</sub> O <sub>2</sub> [BO <sub>2</sub> (OH)] nanosheets. Applied Surface Science, 2022, 582, 152407.	6.1	6

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199	The preparation, characterization of Fe <sub>3</sub> C microelectrolysis materials using low-cost biochar and the removal of ultra-high COD pesticide wastewater. <i>Water and Environment Journal</i> , 2018, 32, 43-50.	2.2	5
200	Smart Solar-Metal-Air Batteries Based on BiOCl Photocorrosion for Monolithic Solar Energy Conversion and Storage. <i>Small</i> , 2022, 18, e2105668.	10.0	5
201	Significant Aggregation-Enhanced Carrier Separation in Nanoscopic Catalysts Heterojunction Stacks. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 56620-56629.	8.0	3
202	Effective H <sub>2</sub> O <sub>2</sub> Production via Favorable Intermediate Desorption in Fluctuating Electrical Fields from Matrix-Filler Mutually Enhanced P <sub>3</sub> N <sub>4</sub> /PVDF/HFP Porous Composite**. <i>ChemElectroChem</i> , 2022, 9, .	3.4	3
203	Synergistically active piezoelectrical H <sub>2</sub> O <sub>2</sub> production composite film achieved from catalytically inert PVDF/HFP matrix and SiO <sub>2</sub> fillers. <i>Chemistry - an Asian Journal</i> , 0, , .	3.3	3
204	Rubidium Cerium (IV) Iodates with High UV-Light-Driven Photocatalytic Efficiency. <i>ChemistrySelect</i> , 2019, 4, 7076-7081.	1.5	2
205	Photocatalytic and Photoelectrochemical Carbon Dioxide Reduction. <i>ChemPhotoChem</i> , 2022, 6, .	3.0	1
206	Smart Design of Small Pd Nanoparticles Confined in Hollow Carbon Nanospheres with Large Center-Radial Mesopores. <i>European Journal of Inorganic Chemistry</i> , 2017, 2017, 2516-2516.	2.0	0
207	Pressure-Driven Two-Step Second-Harmonic Generation Switching in BiOIO <sub>3</sub> . <i>Angewandte Chemie</i> , 0, , .	2.0	0
208	Frontispiece: Ferroelectrics in Photocatalysis. <i>Chemistry - A European Journal</i> , 2022, 28, .	3.3	0