

# Xiaochao Zhang

## List of Publications by Year in descending order

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74  
papers

2,750  
citations

201575

27  
h-index

182361

51  
g-index

74  
all docs

74  
docs citations

74  
times ranked

2985  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhancement of CO <sub>2</sub> Capture on Biomass-Based Carbon from Black Locust by KOH Activation and Ammonia Modification. <i>Energy &amp; Fuels</i> , 2016, 30, 4181-4190.	2.5	181
2	First-principles study on the structural, electronic and optical properties of BiOX (X=Cl, Br, I) crystals. <i>Physica B: Condensed Matter</i> , 2012, 407, 3364-3370.	1.3	167
3	A novel BiOCl thin film prepared by electrochemical method and its application in photocatalysis. <i>Applied Catalysis B: Environmental</i> , 2013, 132-133, 332-341.	10.8	156
4	The BiOCl/diatomite composites for rapid photocatalytic degradation of ciprofloxacin: Efficiency, toxicity evaluation, mechanisms and pathways. <i>Chemical Engineering Journal</i> , 2020, 380, 122422.	6.6	142
5	A BiPO <sub>4</sub> /BiOCl heterojunction photocatalyst with enhanced electron-hole separation and excellent photocatalytic performance. <i>Applied Surface Science</i> , 2015, 340, 35-42.	3.1	136
6	Facile composition-controlled preparation and photocatalytic application of BiOCl/Bi <sub>2</sub> O <sub>2</sub> CO <sub>3</sub> nanosheets. <i>Applied Catalysis B: Environmental</i> , 2014, 150-151, 486-495.	10.8	134
7	Self-Doping Surface Oxygen Vacancy-Induced Lattice Strains for Enhancing Visible Light-Driven Photocatalytic H <sub>2</sub> Evolution over Black TiO <sub>2</sub> . <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 18758-18771.	4.0	127
8	Rapid synthesis of hierarchical BiOCl microspheres for efficient photocatalytic degradation of carbamazepine under simulated solar irradiation. <i>Chemical Engineering Journal</i> , 2015, 263, 419-426.	6.6	123
9	Superhydrophobic RTV silicone rubber insulator coatings. <i>Applied Surface Science</i> , 2012, 258, 2972-2976.	3.1	108
10	Harnessing Ag nanofilm as an electrons transfer mediator for enhanced visible light photocatalytic performance of Ag@AgCl/Ag nanofilm/ZIF-8 photocatalyst. <i>Applied Catalysis B: Environmental</i> , 2017, 202, 64-71.	10.8	105
11	Photocatalytic degradation of carbamazepine using hierarchical BiOCl microspheres: Some key operating parameters, degradation intermediates and reaction pathway. <i>Chemical Engineering Journal</i> , 2015, 273, 156-165.	6.6	84
12	Effects of oxygen vacancy on the electronic structure and absorption spectra of bismuth oxychloride. <i>Computational Materials Science</i> , 2012, 61, 180-184.	1.4	68
13	Low temperature one-step synthesis of rutile TiO <sub>2</sub> /BiOCl composites with enhanced photocatalytic activity. <i>Materials Characterization</i> , 2015, 99, 8-16.	1.9	68
14	DFT+U predictions: The effect of oxygen vacancy on the structural, electronic and photocatalytic properties of Mn-doped BiOCl. <i>Computational Materials Science</i> , 2013, 71, 135-145.	1.4	59
15	Nitrogen-doped carbon quantum dots/Ag <sub>3</sub> PO <sub>4</sub> complex photocatalysts with enhanced visible light driven photocatalytic activity and stability. <i>Journal of Colloid and Interface Science</i> , 2017, 491, 238-245.	5.0	58
16	A facile approach for the tunable fabrication of BiOBr photocatalysts with high activity and stability. <i>Applied Surface Science</i> , 2015, 355, 1075-1082.	3.1	56
17	Synthesis of Bi <sub>4</sub> O <sub>5</sub> Br <sub>2</sub> from reorganization of BiOBr and its excellent visible light photocatalytic activity. <i>Dalton Transactions</i> , 2016, 45, 9182-9186.	1.6	54
18	Theoretical insights into photo-induced electron transfer at BiOX (X = F, Cl, Br, I) (001) surfaces and interfaces. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 868-875.	1.3	51

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19	Enhanced N <sub>2</sub> photofixation activity of flower-like BiOCl by in situ Fe(III) doped as an activation center. <i>Journal of Colloid and Interface Science</i> , 2021, 584, 174-181.	5.0	45
20	RhB-sensitized effect on the enhancement of photocatalytic activity of BiOCl toward bisphenol-A under visible light irradiation. <i>Applied Surface Science</i> , 2014, 317, 517-525.	3.1	44
21	First-principles investigation of impurity concentration influence on bonding behavior, electronic structure and visible light absorption for Mn-doped BiOCl photocatalyst. <i>Physica B: Condensed Matter</i> , 2012, 407, 4416-4424.	1.3	39
22	Assisting Bi <sub>2</sub> MoO <sub>6</sub> microspheres with phenolic resin-based ACSs as attractive tailor-made supporter for highly-efficient photocatalytic CO <sub>2</sub> reduction. <i>Green Energy and Environment</i> , 2021, 6, 693-702.	4.7	38
23	In situ reorganization of Bi <sub>3</sub> O <sub>4</sub> Br nanosheet on the Bi <sub>24</sub> O <sub>31</sub> Br <sub>10</sub> ribbon structure for superior visible-light photocatalytic capability. <i>Separation and Purification Technology</i> , 2020, 247, 117007.	3.9	35
24	Room-temperature hydrolysis fabrication of BiOBr/Bi <sub>12</sub> O <sub>17</sub> Br <sub>2</sub> Z-Scheme photocatalyst with enhanced resorcinol degradation and NO removal activity. <i>Chemosphere</i> , 2019, 235, 767-775.	4.2	34
25	Millimeter-level nitrogen modified activated carbon spheres assisted Bi <sub>4</sub> Ti <sub>3</sub> O <sub>12</sub> composites for bifunctional adsorption/photoreduction of CO <sub>2</sub> . <i>Chemical Engineering Journal</i> , 2021, 417, 128218.	6.6	34
26	Influence of production method, silicone type and thickness on silicon rubber superhydrophobic coatings. <i>Progress in Organic Coatings</i> , 2016, 90, 291-295.	1.9	33
27	Photocatalytic Reduction of CO <sub>2</sub> to CO over 3D Bi <sub>2</sub> MoO <sub>6</sub> Microspheres: Simple Synthesis, High Efficiency and Selectivity, Reaction Mechanism. <i>Catalysis Letters</i> , 2020, 150, 2510-2516.	1.4	30
28	Enhanced photocatalytic reduction of CO <sub>2</sub> to CO over BiOBr assisted by phenolic resin-based activated carbon spheres. <i>RSC Advances</i> , 2019, 9, 14391-14399.	1.7	28
29	Enhanced charge separation and increased oxygen vacancies of h-BN/OV-BiOCl for improved visible-light photocatalytic performance. <i>RSC Advances</i> , 2019, 9, 14286-14295.	1.7	27
30	Citric acid-assisted synthesis of nano-Ag/BiOBr with enhanced photocatalytic activity. <i>Science China Chemistry</i> , 2015, 58, 457-466.	4.2	25
31	Synthesis, characterization and evaluation of resin-based carbon spheres modified by oxygen functional groups for gaseous elemental mercury capture. <i>Journal of Materials Science</i> , 2018, 53, 9429-9448.	1.7	25
32	Simple hydrolysis-photodeposition route to synthesize Ag/BiOCl <sub>0.5</sub> Br <sub>0.5</sub> composites with highly enhanced visible-light photocatalytic properties. <i>Separation and Purification Technology</i> , 2015, 154, 68-75.	3.9	24
33	DFT+U predictions: structural stability, electronic and optical properties, oxidation activity of BiOCl photocatalysts with 3d transition metals doping. <i>Journal of Materials Science</i> , 2018, 53, 4494-4506.	1.7	24
34	Modification of Au nanoparticles electronic state by MOFs defect engineering to realize highly active photocatalytic oxidative esterification of benzyl alcohol with methanol. <i>Catalysis Communications</i> , 2020, 140, 106002.	1.6	23
35	An in vitro study on the cytotoxicity of bismuth oxychloride nanosheets in human HaCaT keratinocytes. <i>Food and Chemical Toxicology</i> , 2015, 80, 52-61.	1.8	22
36	Two-dimensional/two-dimensional heterojunction-induced accelerated charge transfer for photocatalytic hydrogen evolution over Bi <sub>5</sub> O <sub>7</sub> Br/Ti <sub>3</sub> C <sub>2</sub> : Electronic directional transport. <i>Journal of Colloid and Interface Science</i> , 2022, 617, 53-64.	5.0	22

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37	Slow-releasing Cl <sup>-</sup> to prepare BiOCl thin film on Bi plate and its photocatalytic properties. <i>Materials Letters</i> , 2016, 174, 126-128.	1.3	19
38	In-situ electrochemical-ion-exchange synthesis of novel Bi <sub>12</sub> SiO <sub>20</sub> /BiOBr composite film from Bi plate for enhanced photocatalytic CO <sub>2</sub> reduction activity. <i>Materials Letters</i> , 2020, 274, 127990.	1.3	18
39	Atomically dispersed Palladium-Ethylene Glycol- Bismuth oxybromide for photocatalytic nitrogen fixation: Insight of molecular bridge mechanism. <i>Journal of Colloid and Interface Science</i> , 2021, 603, 17-24.	5.0	18
40	Low temperature preparation of flower-like BiOCl film and its photocatalytic activity. <i>Science China Chemistry</i> , 2012, 55, 2438-2444.	4.2	17
41	Theoretical insights into the adsorption of monatomic Ag on the (2 $\bar{1}$ -2) BiOCl (001) surfaces. <i>Computational Materials Science</i> , 2014, 95, 113-120.	1.4	16
42	Preparation of BiOBr thin films with micro-nano-structure and their photocatalytic applications. <i>Thin Solid Films</i> , 2014, 562, 506-512.	0.8	16
43	Synthesis of MnO <sub>2</sub> modified porous carbon spheres by preoxidation-assisted impregnation for catalytic oxidation of indoor formaldehyde. <i>Journal of Porous Materials</i> , 2020, 27, 801-815.	1.3	16
44	Facile hydrolysis synthesis of novel Bi <sub>12</sub> O <sub>17</sub> Br <sub>2</sub> photocatalyst with superior reduction ability and photocatalytic activity. <i>Materials Letters</i> , 2018, 224, 5-8.	1.3	15
45	HCl post-processing BiOBr photocatalyst: structure, morphology, and composition and their impacts to activity. <i>RSC Advances</i> , 2017, 7, 50079-50086.	1.7	11
46	Synthesis and evaluation of activated carbon spheres with copper modification for gaseous elemental mercury removal. <i>Journal of Porous Materials</i> , 2019, 26, 693-703.	1.3	11
47	Synthesis of CeO <sub>2</sub> -modified activated carbon spheres by grafting and coordinating reactions for elemental mercury removal. <i>Journal of Materials Science</i> , 2019, 54, 2836-2852.	1.7	11
48	Removal of Iron(III) and Aluminum Ions from Phosphoric Acid-Nitric Acid Solutions by S957 Chelation Resin: Kinetics, Dynamic Adsorption, and Elution. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 21641-21648.	1.8	10
49	In Situ Synthesis of Hydrangea Finch Coral-like Bi <sub>12</sub> SiO <sub>20</sub> Film with Highly Effective Photocatalytic CO <sub>2</sub> Reduction Performance. <i>ACS Applied Energy Materials</i> , 2021, 4, 15-19.	2.5	10
50	Theoretical Study on Free Fatty Acid Elimination Mechanism for Waste Cooking Oils to Biodiesel over Acid Catalyst. <i>Journal of Molecular Graphics and Modelling</i> , 2016, 66, 41-46.	1.3	9
51	In Situ Hydrothermal Synthesis of Metallic Bi Self-Deposited Bi <sub>2</sub> SiO <sub>5</sub> with Enhanced Photocatalytic CO <sub>2</sub> Reduction Performance. <i>Solar Rrl</i> , 2022, 6, .	3.1	9
52	Effects of morphology and surface hydroxyl on the toxicity of BiOCl in human HaCaT cells. <i>Chemosphere</i> , 2016, 163, 438-445.	4.2	8
53	Optimized design of novel Pt decorated 3D BiOBr flower-microsphere synthesis for highly efficient photocatalytic properties. <i>Chemical Papers</i> , 2018, 72, 2413-2423.	1.0	8
54	Fabrication and analysis of antimicrobial additives for powder coated surface. <i>Progress in Organic Coatings</i> , 2019, 127, 308-318.	1.9	8

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55	Bi <sub>2</sub> S <sub>3</sub> /nylon membrane photothermal absorber with water shortage warning capability for seawater desalination. <i>Materials Letters</i> , 2021, 286, 129188.	1.3	8
56	Effect of chlorine ion on the crystalline and photocatalytic activity of BiOCl for the degradation of Rhodamine B. <i>Crystal Research and Technology</i> , 2013, 48, 496-504.	0.6	7
57	Structural and electronic properties of Cu-doped Zn <sub>5</sub> (OH) <sub>6</sub> (CO <sub>3</sub> ) <sub>2</sub> from first principles. <i>Journal of Materials Science</i> , 2015, 50, 6794-6807.	1.7	7
58	Enhancement in photocatalytic performance of Ag@AgCl decorated with h-WO <sub>3</sub> and mechanism insight. <i>Applied Physics A: Materials Science and Processing</i> , 2019, 125, 1.	1.1	7
59	In situ growth of BiOCl thin film on Bi plate for photocatalytic application. <i>Materials Letters</i> , 2020, 260, 126937.	1.3	7
60	Three-Dimensional Bi <sub>5</sub> O <sub>7</sub> I Photocatalysts for Efficient Removal of NO in Air Under Visible Light. <i>Aerosol Science and Engineering</i> , 2017, 1, 33-40.	1.1	6
61	Regulating electronic properties of BiOBr to enhance visible light response via 3d transition metals doping: DFT + U calculations. <i>International Journal of Quantum Chemistry</i> , 2021, 121, .	1.0	6
62	A Density Functional Theory Study on the Acid-Catalyzed Transesterification Mechanism for Biodiesel Production from Waste Cooking Oils. <i>JAOCS, Journal of the American Oil Chemists' Society</i> , 2019, 96, 137-145.	0.8	5
63	Synthesis of millimeter-sized porous carbon spheres derived from different precursors for CO <sub>2</sub> capture. <i>Journal of Porous Materials</i> , 2021, 28, 81-91.	1.3	5
64	Effect of nanoclay on electrical and mechanical properties of polyurethane conductive coatings filled with nickel-coated carbon fibers. <i>Polymer Engineering and Science</i> , 2014, 54, 1120-1125.	1.5	4
65	Thermodynamic and kinetic studies on OH-involved photo-decarboxylation mechanism for waste cooking oils to biofuels. <i>Fuel</i> , 2019, 254, 115665.	3.4	4
66	BiOBr-photocatalyzed cis-trans isomerization of 9-octadecenoic acids in different atmospheres. <i>Catalysis Science and Technology</i> , 2019, 9, 3380-3387.	2.1	4
67	Preparation of aluminium metallic pigmented powder coatings with high color stability using a novel method: Microwave bonding. <i>Progress in Organic Coatings</i> , 2020, 147, 105787.	1.9	4
68	Preoxidation-assisted nitrogen enrichment strategy to decorate porous carbon spheres for catalytic adsorption/oxidation of methyl mercaptan. <i>RSC Advances</i> , 2020, 10, 37644-37656.	1.7	4
69	Hydrothermal carbon modified Cu-Fe oxide with enhanced Fe(II)/Fe(III) cycle to activate peroxydisulfate for phenol removal. <i>Journal of Sol-Gel Science and Technology</i> , 2022, 103, 526-538.	1.1	4
70	Facile synthesis of nitrogen-rich porous carbon spheres assisted by NaNH <sub>2</sub> as a bifunctional activator and nitrogen source for CO <sub>2</sub> capture. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 106605.	3.3	3
71	Theoretical insights into effective electron transfer and migration behavior for CO <sub>2</sub> reduction on the BiOBr(001) surfaces. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 2032-2039.	1.3	3
72	In-situ synthesis of BiVO <sub>4</sub> film by OH <sup>-</sup> assisted VO <sub>3</sub> <sup>-</sup> releasing and its efficient visible light photocatalytic property. <i>Catalysis Communications</i> , 2020, 144, 106071.	1.6	2

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73	Controllable Synthesis of $\text{BiOCl}$ with $\text{Zn}$ -Scheme (001)/(110) Facet Homojunction and their Photocatalytic Killing Effect on $\text{HePG2}$ Cells in vitro. Photochemistry and Photobiology, 0, , .	1.3	1
74	Produce various powder coated surfaces with stable metal shine via microwave energy. Progress in Organic Coatings, 2021, 154, 106199.	1.9	0