

# Ai-Yong Zhang

## List of Publications by Year in descending order

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26  
papers

1,316  
citations

361413

20  
h-index

552781

26  
g-index

26  
all docs

26  
docs citations

26  
times ranked

2242  
citing authors

#	ARTICLE	IF	CITATIONS
1	Superior degradation of phenolic contaminants in different water matrices via non-radical Fenton-like mechanism mediated by surface-disordered WO <sub>3</sub> . Environmental Science and Pollution Research, 2022, 29, 18259-18270.	5.3	1
2	Recycling chestnut shell for superior peroxymonosulfate activation in contaminants degradation via the synergistic radical/non-radical mechanisms. Journal of Hazardous Materials, 2022, 430, 128471.	12.4	11
3	Reusing Sulfur-Poisoned Palladium Waste as a Highly Active, Nonradical Fenton-like Catalyst for Selective Degradation of Phenolic Pollutants. Environmental Science & Technology, 2022, 56, 564-574.	10.0	30
4	Tailoring the Fenton-like mechanisms of surface functional groups by corrosive structural defects for superior pollutant degradation on platform carbon. Journal of Environmental Chemical Engineering, 2022, 10, 108210.	6.7	1
5	Non-radical activation of H <sub>2</sub> O <sub>2</sub> by surface-disordered WO <sub>3</sub> for efficient and selective pollutant degradation with weak matrix effects. Environmental Science and Pollution Research, 2020, 27, 1898-1911.	5.3	7
6	In situ organic Fenton-like catalysis triggered by anodic polymeric intermediates for electrochemical water purification. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30966-30972.	7.1	41
7	Stable Electrochemical Determination of Dopamine by a Fluorine-Terminated {001}-Exposed TiO <sub>2</sub> Single Crystal Sensor. Analytical Chemistry, 2020, 92, 9629-9639.	6.5	10
8	Photochemical pollutant degradation on facet junction-engineered TiO <sub>2</sub> promoted by organic arsenical: Governing roles of arsenic-terminated surface chemistry and bulk-free radical speciation. Journal of Hazardous Materials, 2020, 390, 122159.	12.4	10
9	Electrochemical treatment of phenol-containing wastewater by facet-tailored TiO <sub>2</sub> : Efficiency, characteristics and mechanisms. Water Research, 2019, 165, 114980.	11.3	58
10	Photochemical Protection of Reactive Sites on Defective TiO <sub>2</sub> Surface for Electrochemical Water Treatment. Environmental Science & Technology, 2019, 53, 7641-7652.	10.0	26
11	Photo-assisted electrochemical detection of bisphenol A in water samples by renewable {001}-exposed TiO <sub>2</sub> single crystals. Water Research, 2019, 157, 30-39.	11.3	22
12	Electrochemical Sensing of Bisphenol A on Facet-Tailored TiO <sub>2</sub> Single Crystals Engineered by Inorganic-Framework Molecular Imprinting Sites. Analytical Chemistry, 2018, 90, 3165-3173.	6.5	63
13	Epitaxial facet junctions on TiO <sub>2</sub> single crystals for efficient photocatalytic water splitting. Energy and Environmental Science, 2018, 11, 1444-1448.	30.8	102
14	Heterogeneous Fenton decontamination of organoarsenicals and simultaneous adsorption of released arsenic with reduced secondary pollution. Chemical Engineering Journal, 2018, 344, 1-11.	12.7	70
15	Degradation of organic pollutants by Co <sub>3</sub> O <sub>4</sub> -mediated peroxymonosulfate oxidation: Roles of high-energy {001}-exposed TiO <sub>2</sub> support. Chemical Engineering Journal, 2018, 334, 1430-1439.	12.7	75
16	A simple strategy to refine Cu <sub>2</sub> O photocatalytic capacity for refractory pollutants removal: Roles of oxygen reduction and Fe(II) chemistry. Journal of Hazardous Materials, 2017, 330, 9-17.	12.4	21
17	Photochemical Anti-Fouling Approach for Electrochemical Pollutant Degradation on Facet-Tailored TiO <sub>2</sub> Single Crystals. Environmental Science & Technology, 2017, 51, 11326-11335.	10.0	30
18	Layer-controlled growth of MoS <sub>2</sub> on self-assembled flower-like Bi <sub>2</sub> S <sub>3</sub> for enhanced photocatalysis under visible light irradiation. NPG Asia Materials, 2016, 8, e263-e263.	7.9	72

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19	Efficient Electrochemical Reduction of Nitrobenzene by Defect-Engineered TiO <sub>2</sub> Single Crystals. <i>Environmental Science &amp; Technology</i> , 2016, 50, 5234-5242.	10.0	109
20	Degradation of refractory pollutants under solar light irradiation by a robust and self-protected ZnO/CdS/TiO <sub>2</sub> hybrid photocatalyst. <i>Water Research</i> , 2016, 92, 78-86.	11.3	86
21	Heterogeneous activation of H <sub>2</sub> O <sub>2</sub> by defect-engineered TiO <sub>2</sub> single crystals for refractory pollutants degradation: A Fenton-like mechanism. <i>Journal of Hazardous Materials</i> , 2016, 311, 81-90.	12.4	54
22	A robust cocatalyst Pd <sub>4</sub> S uniformly anchored onto Bi <sub>2</sub> S <sub>3</sub> nanorods for enhanced visible light photocatalysis. <i>Journal of Materials Chemistry A</i> , 2015, 3, 4301-4306.	10.3	45
23	Defective titanium dioxide single crystals exposed by high-energy {001} facets for efficient oxygen reduction. <i>Nature Communications</i> , 2015, 6, 8696.	12.8	263
24	Electrochemical degradation of refractory pollutants using TiO <sub>2</sub> single crystals exposed by high-energy {001} facets. <i>Water Research</i> , 2014, 66, 273-282.	11.3	56
25	Chemical recycling of the waste anodic electrolyte from the TiO <sub>2</sub> nanotube preparation process to synthesize facet-controlled TiO <sub>2</sub> single crystals as an efficient photocatalyst. <i>Green Chemistry</i> , 2014, 16, 2745-2753.	9.0	27
26	Hexagonal microrods of anatase tetragonal TiO <sub>2</sub> : self-directed growth and superior photocatalytic performance. <i>Chemical Communications</i> , 2013, 49, 6075.	4.1	26