Yongbing Xie

List of Publications by Year in descending order

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90 papers	5,436 citations	81900 39 h-index	82547 72 g-index
90 all docs	90 docs citations	90 times ranked	5720 citing authors

#	Article	IF	Citations
1	Reactive Oxygen Species and Catalytic Active Sites in Heterogeneous Catalytic Ozonation for Water Purification. Environmental Science & Technology, 2020, 54, 5931-5946.	10.0	285
2	Organic pollutants removal in wastewater by heterogeneous photocatalytic ozonation. Chemosphere, 2015, 121, 1-17.	8.2	282
3	Efficient Catalytic Ozonation over Reduced Graphene Oxide for p-Hydroxylbenzoic Acid (PHBA) Destruction: Active Site and Mechanism. ACS Applied Materials & Interfaces, 2016, 8, 9710-9720.	8.0	234
4	Single-Atom Mnâ€“N₄ Site-Catalyzed Peroxone Reaction for the Efficient Production of Hydroxyl Radicals in an Acidic Solution. Journal of the American Chemical Society, 2019, 141, 12005-12010.	13.7	203
5	2D/2D nano-hybrids of Î³-MnO 2 on reduced graphene oxide for catalytic ozonation and coupling peroxymonosulfate activation. Journal of Hazardous Materials, 2016, 301, 56-64.	12.4	195
6	Role of oxygen vacancies and Mn sites in hierarchical Mn2O3/LaMnO3-Î´ perovskite composites for aqueous organic pollutants decontamination. Applied Catalysis B: Environmental, 2019, 245, 546-554.	20.2	187
7	A closed-loop process for recycling LiNi1/3Co1/3Mn1/3O2 from the cathode scraps of lithium-ion batteries: Process optimization and kinetics analysis. Separation and Purification Technology, 2015, 150, 186-195.	7.9	169
8	Dramatic coupling of visible light with ozone on honeycomb-like porous g-C 3 N 4 towards superior oxidation of water pollutants. Applied Catalysis B: Environmental, 2016, 183, 417-425.	20.2	165
9	An overview on the processes and technologies for recycling cathodic active materials from spent lithium-ion batteries. Journal of Material Cycles and Waste Management, 2013, 15, 420-430.	3.0	163
10	Selection of active phase of MnO2 for catalytic ozonation of 4-nitrophenol. Chemosphere, 2017, 168, 1457-1466.	8.2	159
11	Synthesis and Characterization of Noble Metal (Pd, Pt, Au, Ag) Nanostructured Materials Confined in the Channels of Mesoporous SBA-15. Journal of Physical Chemistry C, 2008, 112, 19818-19824.	3.1	156
12	Nanocarbon-Based Catalytic Ozonation for Aqueous Oxidation: Engineering Defects for Active Sites and Tunable Reaction Pathways. ACS Catalysis, 2020, 10, 13383-13414.	11.2	141
13	Enhanced proton and electron reservoir abilities of polyoxometalate grafted on graphene for high-performance hydrogen evolution. Energy and Environmental Science, 2016, 9, 1012-1023.	30.8	138
14	Fast Electron Transfer and ^{â€¢}OH Formation: Key Features for High Activity in Visible-Light-Driven Ozonation with C₃N₄ Catalysts. ACS Catalysis, 2017, 7, 6198-6206.	11.2	135
15	The evolution of surface charge on graphene oxide during the reduction and its application in electroanalysis. Carbon, 2014, 66, 302-311.	10.3	134
16	Tailored synthesis of active reduced graphene oxides from waste graphite: Structural defects and pollutant-dependent reactive radicals in aqueous organics decontamination. Applied Catalysis B: Environmental, 2018, 229, 71-80.	20.2	128
17	Is C₃N₄ Chemically Stable toward Reactive Oxygen Species in Sunlight-Driven Water Treatment?. Environmental Science & Technology, 2017, 51, 13380-13387.	10.0	119
18	Super synergy between photocatalysis and ozonation using bulk g-C3N4 as catalyst: A potential sunlight/O3/g-C3N4 method for efficient water decontamination. Applied Catalysis B: Environmental, 2016, 181, 420-428.	20.2	113

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19	A novel process for recycling and resynthesizing LiNi1/3Co1/3Mn1/3O2 from the cathode scraps intended for lithium-ion batteries. Waste Management, 2014, 34, 1715-1724.	7.4	111
20	Occurrence of both hydroxyl radical and surface oxidation pathways in N-doped layered nanocarbons for aqueous catalytic ozonation. Applied Catalysis B: Environmental, 2019, 254, 283-291.	20.2	109
21	Promoting effect of nitration modification on activated carbon in the catalytic ozonation of oxalic acid. Applied Catalysis B: Environmental, 2014, 146, 169-176.	20.2	99
22	Catalytic ozonation of 4-nitrophenol over an mesoporous Î±-MnO2 with resistance to leaching. Catalysis Today, 2015, 258, 595-601.	4.4	88
23	Metal-free catalytic ozonation on surface-engineered graphene: Microwave reduction and heteroatom doping. Chemical Engineering Journal, 2019, 355, 118-129.	12.7	86
24	Superoxide radical-mediated photocatalytic oxidation of phenolic compounds over Ag + /TiO 2 : Influence of electron donating and withdrawing substituents. Journal of Hazardous Materials, 2016, 304, 126-133.	12.4	82
25	Visible-Light Photocatalytic Ozonation Using Graphitic C₃N₄ Catalysts: A Hydroxyl Radical Manufacturer for Wastewater Treatment. Accounts of Chemical Research, 2020, 53, 1024-1033.	15.6	81
26	Hierarchical shape-controlled mixed-valence calcium manganites for catalytic ozonation of aqueous phenolic compounds. Catalysis Science and Technology, 2016, 6, 2918-2929.	4.1	69
27	The role of ozone and influence of band structure in WO3 photocatalysis and ozone integrated process for pharmaceutical wastewater treatment. Journal of Hazardous Materials, 2018, 360, 481-489.	12.4	60
28	Carbon dioxide reforming of methane over glow discharge plasma-reduced Ir/Al2O3 catalyst. Catalysis Communications, 2008, 9, 1558-1562.	3.3	58
29	g-C3N4-triggered super synergy between photocatalysis and ozonation attributed to promoted OH generation. Catalysis Communications, 2015, 66, 10-14.	3.3	57
30	The influence of the substituent on the phenol oxidation rate and reactive species in cubic MnO₂catalytic ozonation. Catalysis Science and Technology, 2016, 6, 7875-7884.	4.1	57
31	Hierarchical biomimetic BiVO4 for the treatment of pharmaceutical wastewater in visible-light photocatalytic ozonation. Chemosphere, 2019, 222, 38-45.	8.2	55
32	Different roles of Fe atoms and nanoparticles on g-C3N4 in regulating the reductive activation of ozone under visible light. Applied Catalysis B: Environmental, 2021, 296, 120362.	20.2	54
33	Towards effective design of active nanocarbon materials for integrating visible-light photocatalysis with ozonation. Carbon, 2016, 107, 658-666.	10.3	52
34	Mechanistic Investigations of the Pyridinic Nâ€“Co Structures in Co Embedded N-Doped Carbon Nanotubes for Catalytic Ozonation. ACS ES&T Engineering, 2021, 1, 32-45.	7.6	50
35	Highly Selective PdCu/Amorphous Silicaâ"Alumina (ASA) Catalysts for Groundwater Denitration. Environmental Science & Technology, 2011, 45, 4066-4072.	10.0	48
36	Br/Co/N Co-doped porous carbon frameworks with enriched defects for high-performance electrocatalysis. Journal of Materials Chemistry A, 2020, 8, 10865-10874.	10.3	47

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37	Phenolic compounds removal by wet air oxidation based processes. Frontiers of Environmental Science and Engineering, 2018, 12, 1.	6.0	46
38	Activated carbon-enhanced ozonation of oxalate attributed to HO oxidation in bulk solution and surface oxidation: Effects of the type and number of basic sites. Chemical Engineering Journal, 2014, 245, 71-79.	12.7	45
39	Stability of Ionic Liquids under the Influence of Glow Discharge Plasmas. Plasma Processes and Polymers, 2008, 5, 239-245.	3.0	44
40	High activity of g-C3N4/multiwall carbon nanotube in catalytic ozonation promotes electro-peroxone process. Chemosphere, 2018, 201, 206-213.	8.2	42
41	Degradation of phenolic compounds by dielectric barrier plasma: Process optimization and influence of phenol substituents. Chemical Engineering Journal, 2020, 385, 123732.	12.7	42
42	Disparate roles of doped metal ions in promoting surface oxidation of TiO 2 photocatalysis. Journal of Photochemistry and Photobiology A: Chemistry, 2016, 315, 59-66.	3.9	38
43	Novel oxidative cutting graphene oxide to graphene quantum dots for electrochemical sensing application. Materials Today Communications, 2016, 8, 127-133.	1.9	33
44	N-dependent ozonation efficiency over nitrogen-containing heterocyclic contaminants: A combined density functional theory study on reaction kinetics and degradation pathways. Chemical Engineering Journal, 2020, 382, 122708.	12.7	33
45	Insights into the mechanism of phenolic mixture degradation by catalytic ozonation with a mesoporous Fe₃O₄/MnO₂ composite. RSC Advances, 2016, 6, 29674-29684.	3.6	32
46	Support effect boosting the electrocatalytic N₂ reduction activity of Ni₂P/N,P-codoped carbon nanosheet hybrids. Journal of Materials Chemistry A, 2020, 8, 2691-2700.	10.3	32
47	Number of Reactive Charge Carriersâ€"A Hidden Linker between Band Structure and Catalytic Performance in Photocatalysts. ACS Catalysis, 2019, 9, 8852-8861.	11.2	31
48	Temperature-Dependent Selectivity of Hydrogenation/Hydrogenolysis during Phenol Conversion over Ni Catalysts. ACS Sustainable Chemistry and Engineering, 2019, 7, 9464-9473.	6.7	31
49	The duet of surface and radical-based carbocatalysis for oxidative destructions of aqueous contaminants over built-in nanotubes of graphite. Journal of Hazardous Materials, 2020, 384, 121486.	12.4	29
50	Grapheneâ€"CdS quantum dotsâ€"polyoxometalate composite films for efficient photoelectrochemical water splitting and pollutant degradation. Physical Chemistry Chemical Physics, 2014, 16, 26016-26023.	2.8	27
51	Mechanism of ozone adsorption and activation on B-, N-, P-, and Si-doped graphene: A DFT study. Chemical Engineering Journal, 2022, 430, 133114.	12.7	27
52	Insights into the Mechanism of Ozone Activation and Singlet Oxygen Generation on N-Doped Defective Nanocarbons: A DFT and Machine Learning Study. Environmental Science & Technology, 2022, 56, 7853-7863.	10.0	27
53	Towards a better understanding of the synergistic effect in the electro-peroxone process using a three electrode system. Chemical Engineering Journal, 2018, 337, 733-740.	12.7	26
54	Enhanced hole-dominated photocatalytic activity of doughnut-like porous g-C3N4 driven by down-shifted valance band maximum. Catalysis Today, 2018, 307, 147-153.	4.4	25

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55	Reaction mechanism and metal ion transformation in photocatalytic ozonation of phenol and oxalic acid with Ag+/TiO2. Journal of Environmental Sciences, 2014, 26, 662-672.	6.1	23
56	Morphologic evolution of Au nanocrystals grown in ionic liquid by plasma reduction. Journal of Colloid and Interface Science, 2012, 374, 40-44.	9.4	21
57	Acidity induced fast transformation of acetaminophen by different MnO2: Kinetics and pathways. Chemical Engineering Journal, 2019, 359, 518-529.	12.7	21
58	In-situ synthesis of N, S co-doped hollow carbon microspheres for efficient catalytic oxidation of organic contaminants. Chinese Chemical Letters, 2022, 33, 1298-1302.	9.0	20
59	Activated carbon adsorption coupled with ozonation regeneration for efficient removal of chlorobenzene. Journal of Environmental Chemical Engineering, 2022, 10, 107319.	6.7	19
60	Wet air oxidation of indole, benzopyrazole, and benzotriazole: Effects of operating conditions and reaction mechanisms. Chemical Engineering Journal, 2018, 338, 496-503.	12.7	18
61	The structure-activity relationship of aromatic compounds in advanced oxidation processesï¼ša review. Chemosphere, 2022, 296, 134071.	8.2	18
62	Promising application of SiC without co-catalyst in photocatalysis and ozone integrated process for aqueous organics degradation. Catalysis Today, 2018, 315, 223-229.	4.4	17
63	Dendritic BiVO4 decorated with MnOx co-catalyst as an efficient hierarchical catalyst for photocatalytic ozonation. Frontiers of Chemical Science and Engineering, 2019, 13, 185-191.	4.4	17
64	Enhanced Activity of Bimetallic Pd-Based Catalysts for Methane Combustion. Catalysis Letters, 2008, 125, 130-133.	2.6	16
65	Chloro-benquinone Modified on Graphene Oxide as Metal-free Catalyst: Strong Promotion of Hydroxyl Radical and Generation of Ultra-Small Graphene Oxide. Scientific Reports, 2017, 7, 42643.	3.3	16
66	Conversion of phenol to cyclohexane in the aqueous phase over Ni/zeolite bi-functional catalysts. Frontiers of Chemical Science and Engineering, 2021, 15, 288-298.	4.4	16
67	Capacitive deionization by ordered mesoporous carbon: electrosorption isotherm, kinetics, and the effect of modification. Desalination and Water Treatment, 2014, 52, 1388-1395.	1.0	15
68	Activated carbon enhanced ozonation of oxalate attributed to HO oxidation in bulk solution and surface oxidation: Effect of activated carbon dosage and pH. Journal of Environmental Sciences, 2014, 26, 2095-2105.	6.1	15
69	Stability test and EXAFS characterization of plasma prepared Pd/HZSM-5 catalyst for methane combustion. Applied Surface Science, 2007, 254, 1506-1510.	6.1	14
70	Double layered, one-pot hydrothermal synthesis of M-TiO2 (M = Fe3+, Ni2+, Cu2+ and Co2+) and their application in photocatalysis. Science China Chemistry, 2013, 56, 1783-1789.	8.2	14
71	Selective Production of Jet-Fuel-Range Alkanes from Palmitic Acid over Ni/H-MCM-49 with Two Independent Pore Systems. Industrial & Engineering Chemistry Research, 2019, 58, 21341-21349.	3.7	14
72	Enhanced removal of benzothiazole in persulfate promoted wet air oxidation via degradation and synchronous polymerization. Chemical Engineering Journal, 2019, 370, 208-217.	12.7	14

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73	Stability of Pt particles on ZrO2 support during partial oxidation of methane: DRIFT studies of adsorbed CO. Journal of Molecular Catalysis A, 2008, 282, 67-73.	4.8	13
74	Distinct synergetic effects in the ozone enhanced photocatalytic degradation of phenol and oxalic acid with Fe 3+ /TiO 2 catalyst. Chinese Journal of Chemical Engineering, 2018, 26, 1528-1535.	3.5	12
75	Boosting oxygen evolution reactivity by modulating electronic structure and honeycomb-like architecture in Ni2P/N,P-codoped carbon hybrids. Green Energy and Environment, 2021, 6, 866-874.	8.7	12
76	Efficient Tetra-Functional Electrocatalyst with Synergetic Effect of Different Active Sites for Multi-Model Energy Conversion and Storage. ACS Applied Materials & Interfaces, 2020, 12, 23017-23027.	8.0	12
77	Mechanisms of Cu²⁺migration, recovery and detoxification in Cu²⁺-, -containing wastewater treatment process with anaerobic granular sludge. Environmental Technology (United Kingdom), 2014, 35, 1956-1961.	2.2	11
78	Synthesis of Magnetic Carbon Supported Manganese Catalysts for Phenol Oxidation by Activation of Peroxymonosulfate. Catalysts, 2017, 7, 3.	3.5	10
79	C₃N₄â€“Mn/CNT composite as a heterogeneous catalyst in the electro-peroxone process for promoting the reaction between O₃and H₂O₂in acid solution. Catalysis Science and Technology, 2018, 8, 6241-6251.	4.1	10
80	Iron/nickel nano-alloy encapsulated in nitrogen-doped carbon framework for CO2 electrochemical conversion with prominent CO selectivity. Journal of Power Sources, 2020, 449, 227496.	7.8	10
81	A facial synthesis of nitrogen-doped reduced graphene oxide quantum dot and its application in aqueous organics degradation. Green Energy and Environment, 2022, 7, 440-448.	8.7	9
82	Ni nanoparticles encapsulated within H-type ZSM-5 crystals for upgrading palmitic acid to diesel-like fuels. Chinese Chemical Letters, 2022, 33, 803-806.	9.0	9
83	Upgrading of palmitic acid to diesel-like fuels over Ni@HZSM-5 bi-functional catalysts through the in situ encapsulation method. Molecular Catalysis, 2021, 511, 111715.	2.0	9
84	Coupling-oxidation process promoted ring-opening degradation of 2-mecapto-5-methyl-1,3,4-thiadizaole in wastewater. Water Research, 2020, 186, 116362.	11.3	7
85	A promising catalytic solution of NO reduction by CO using g-C3N4/TiO2: A DFT study. Journal of Colloid and Interface Science, 2022, 610, 152-163.	9.4	7
86	Reaction condition optimization and degradation pathway in wet oxidation of benzopyrazole revealed by computational and experimental approaches. Journal of Hazardous Materials, 2018, 351, 169-176.	12.4	6
87	Degradation of potassium alkyl xanthogenate in wet air oxidation: Enhancement method, degradation mechanism and structure impact. Journal of Environmental Chemical Engineering, 2022, 10, 107349.	6.7	4
88	Coagulation behaviors and in-situ flocs characteristics of composite coagulants in cyanide-containing wastewater: Role of cationic polyelectrolyte. Science China Chemistry, 2013, 56, 1765-1774.	8.2	3
89	Encapsulated Ni Nanoparticles within Silicalite-1 Crystals for Upgrading Phenolic Compounds to Arenes. Industrial & Engineering Chemistry Research, 2021, 60, 13790-13801.	3.7	3
90	Facile synthesis of nitrogen and sulfur co-doped hollow microsphere polymers from benzothiazole containing wastewater for water treatment. Chemosphere, 2022, 287, 131982.	8.2	2