Xiaoguang Duan

List of Publications by Year in descending order

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243 papers 30,708 citations

90 h-index 167 g-index

244 all docs 244 docs citations

times ranked

244

12657 citing authors

#	Article	IF	CITATIONS
1	Metal-Free Carbocatalysis in Advanced Oxidation Reactions. Accounts of Chemical Research, 2018, 51, 678-687.	15.6	968
2	Catalytic Removal of Aqueous Contaminants on N-Doped Graphitic Biochars: Inherent Roles of Adsorption and Nonradical Mechanisms. Environmental Science & Eamp; Technology, 2018, 52, 8649-8658.	10.0	820
3	Persulfate Activation on Crystallographic Manganese Oxides: Mechanism of Singlet Oxygen Evolution for Nonradical Selective Degradation of Aqueous Contaminants. Environmental Science & Eamp; Technology, 2019, 53, 307-315.	10.0	817
4	N-Doping-Induced Nonradical Reaction on Single-Walled Carbon Nanotubes for Catalytic Phenol Oxidation. ACS Catalysis, 2015, 5, 553-559.	11.2	772
5	Nonradical reactions in environmental remediation processes: Uncertainty and challenges. Applied Catalysis B: Environmental, 2018, 224, 973-982.	20.2	694
6	Nitrogen-Doped Graphene for Generation and Evolution of Reactive Radicals by Metal-Free Catalysis. ACS Applied Materials & Samp; Interfaces, 2015, 7, 4169-4178.	8.0	677
7	Insights into Heterogeneous Catalysis of Persulfate Activation on Dimensional-Structured Nanocarbons. ACS Catalysis, 2015, 5, 4629-4636.	11.2	642
8	Occurrence of radical and nonradical pathways from carbocatalysts for aqueous and nonaqueous catalytic oxidation. Applied Catalysis B: Environmental, 2016, 188, 98-105.	20.2	570
9	Sulfur and Nitrogen Co-Doped Graphene for Metal-Free Catalytic Oxidation Reactions. Small, 2015, 11, 3036-3044.	10.0	567
10	The Intrinsic Nature of Persulfate Activation and N-Doping in Carbocatalysis. Environmental Science &	10.0	536
11	Single-atom catalysis in advanced oxidation processes for environmental remediation. Chemical Society Reviews, 2021, 50, 5281-5322.	38.1	502
12	Recent advances in transition metal-based electrocatalysts for alkaline hydrogen evolution. Journal of Materials Chemistry A, 2019, 7, 14971-15005.	10.3	501
13	Activation of Peroxydisulfate on Carbon Nanotubes: Electron-Transfer Mechanism. Environmental Science & Electron Science & Elec	10.0	464
14	Insights into the Electron-Transfer Regime of Peroxydisulfate Activation on Carbon Nanotubes: The Role of Oxygen Functional Groups. Environmental Science & Environmental Science & 2020, 54, 1267-1275.	10.0	452
15	Origins of Electron-Transfer Regime in Persulfate-Based Nonradical Oxidation Processes. Environmental Science & Environmental	10.0	445
16	Insights into perovskite-catalyzed peroxymonosulfate activation: Maneuverable cobalt sites for promoted evolution of sulfate radicals. Applied Catalysis B: Environmental, 2018, 220, 626-634.	20.2	428
17	Surface controlled generation of reactive radicals from persulfate by carbocatalysis on nanodiamonds. Applied Catalysis B: Environmental, 2016, 194, 7-15.	20.2	390
18	An insight into metal organic framework derived N-doped graphene for the oxidative degradation of persistent contaminants: formation mechanism and generation of singlet oxygen from peroxymonosulfate. Environmental Science: Nano, 2017, 4, 315-324.	4.3	372

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19	Identification and Regulation of Active Sites on Nanodiamonds: Establishing a Highly Efficient Catalytic System for Oxidation of Organic Contaminants. Advanced Functional Materials, 2018, 28, 1705295.	14.9	370
20	Unveiling the active sites of graphene-catalyzed peroxymonosulfate activation. Carbon, 2016, 107, 371-378.	10.3	359
21	N-doped graphitic biochars from C-phycocyanin extracted Spirulina residue for catalytic persulfate activation toward nonradical disinfection and organic oxidation. Water Research, 2019, 159, 77-86.	11.3	347
22	Facile synthesis of nitrogen-doped graphene via low-temperature pyrolysis: The effects of precursors and annealing ambience on metal-free catalytic oxidation. Carbon, 2017, 115, 649-658.	10.3	323
23	Porous Carbons: Structureâ€Oriented Design and Versatile Applications. Advanced Functional Materials, 2020, 30, 1909265.	14.9	316
24	Facile assembly of Bi2O3/Bi2S3/MoS2 n-p heterojunction with layered n-Bi2O3 and p-MoS2 for enhanced photocatalytic water oxidation and pollutant degradation. Applied Catalysis B: Environmental, 2017, 200, 47-55.	20.2	314
25	Degradation of Cosmetic Microplastics via Functionalized Carbon Nanosprings. Matter, 2019, 1, 745-758.	10.0	306
26	OD (MoS2)/2D (g-C3N4) heterojunctions in Z-scheme for enhanced photocatalytic and electrochemical hydrogen evolution. Applied Catalysis B: Environmental, 2018, 228, 64-74.	20.2	298
27	Potential Difference Driving Electron Transfer <i>via</i> Defective Carbon Nanotubes toward Selective Oxidation of Organic Micropollutants. Environmental Science & Environmental Science & 2020, 54, 8464-8472.	10.0	288
28	Nanocarbons in different structural dimensions (0–3D) for phenol adsorption and metal-free catalytic oxidation. Applied Catalysis B: Environmental, 2015, 179, 352-362.	20.2	277
29	Engineered carbon supported single iron atom sites and iron clusters from Fe-rich Enteromorpha for Fenton-like reactions via nonradical pathways. Applied Catalysis B: Environmental, 2021, 287, 119963.	20.2	271
30	Z-scheme plasmonic Ag decorated WO3/Bi2WO6 hybrids for enhanced photocatalytic abatement of chlorinated-VOCs under solar light irradiation. Applied Catalysis B: Environmental, 2019, 242, 76-84.	20.2	270
31	Activation of peroxymonosulfate by carbonaceous oxygen groups: experimental and density functional theory calculations. Applied Catalysis B: Environmental, 2016, 198, 295-302.	20.2	261
32	Mixed Conducting Perovskite Materials as Superior Catalysts for Fast Aqueous-Phase Advanced Oxidation: A Mechanistic Study. ACS Catalysis, 2017, 7, 388-397.	11,2	260
33	Insights into N-doping in single-walled carbon nanotubes for enhanced activation of superoxides: a mechanistic study. Chemical Communications, 2015, 51, 15249-15252.	4.1	259
34	Remediation of antibiotic wastewater by coupled photocatalytic and persulfate oxidation system: A critical review. Journal of Hazardous Materials, 2021, 408, 124461.	12.4	246
35	A new magnetic nano zero-valent iron encapsulated in carbon spheres for oxidative degradation of phenol. Applied Catalysis B: Environmental, 2015, 172-173, 73-81.	20.2	244
36	N-Doped Graphene from Metal–Organic Frameworks for Catalytic Oxidation of p-Hydroxylbenzoic Acid: N-Functionality and Mechanism. ACS Sustainable Chemistry and Engineering, 2017, 5, 2693-2701.	6.7	243

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37	New insights into heterogeneous generation and evolution processes of sulfate radicals for phenol degradation over one-dimensional l±-MnO2 nanostructures. Chemical Engineering Journal, 2015, 266, 12-20.	12.7	229
38	Nitrogen- and Sulfur-Codoped Hierarchically Porous Carbon for Adsorptive and Oxidative Removal of Pharmaceutical Contaminants. ACS Applied Materials & Earny; Interfaces, 2016, 8, 7184-7193.	8.0	224
39	Heterogeneous activation of peroxymonosulfate by amorphous boron for degradation of bisphenol S. Journal of Hazardous Materials, 2017, 322, 532-539.	12.4	218
40	Nanodiamonds in sp 2 /sp 3 configuration for radical to nonradical oxidation: Core-shell layer dependence. Applied Catalysis B: Environmental, 2018, 222, 176-181.	20.2	214
41	Sub-5 nm Ultra-Fine FeP Nanodots as Efficient Co-Catalysts Modified Porous g-C ₃ N ₄ for Precious-Metal-Free Photocatalytic Hydrogen Evolution under Visible Light. ACS Applied Materials & Samp; Interfaces, 2019, 11, 5651-5660.	8.0	208
42	Fast and Longâ€Lasting Iron(III) Reduction by Boron Toward Green and Accelerated Fenton Chemistry. Angewandte Chemie - International Edition, 2020, 59, 16517-16526.	13.8	206
43	Nitrogen-doped bamboo-like carbon nanotubes with Ni encapsulation for persulfate activation to remove emerging contaminants with excellent catalytic stability. Chemical Engineering Journal, 2018, 332, 398-408.	12.7	199
44	Low temperature combustion synthesis of nitrogen-doped graphene for metal-free catalytic oxidation. Journal of Materials Chemistry A, 2015, 3, 3432-3440.	10.3	194
45	Roles of structure defect, oxygen groups and heteroatom doping on carbon in nonradical oxidation of water contaminants. Water Research, 2020, 185, 116244.	11.3	194
46	Iridium-based nanomaterials for electrochemical water splitting. Nano Energy, 2020, 78, 105270.	16.0	192
47	Density Functional Theory Calculations for Insight into the Heterocatalyst Reactivity and Mechanism in Persulfate-Based Advanced Oxidation Reactions. ACS Catalysis, 2021, 11, 11129-11159.	11.2	190
48	Correlation of Active Sites to Generated Reactive Species and Degradation Routes of Organics in Peroxymonosulfate Activation by Co-Loaded Carbon. Environmental Science & Envi	10.0	189
49	Role of oxygen vacancies and Mn sites in hierarchical Mn2O3/LaMnO3-δ perovskite composites for aqueous organic pollutants decontamination. Applied Catalysis B: Environmental, 2019, 245, 546-554.	20.2	187
50	Effects of nitrogen-, boron-, and phosphorus-doping or codoping on metal-free graphene catalysis. Catalysis Today, 2015, 249, 184-191.	4.4	185
51	Photocatalytic conversion of lignocellulosic biomass to valuable products. Green Chemistry, 2019, 21, 4266-4289.	9.0	180
52	Production, properties, and catalytic applications of sludge derived biochar for environmental remediation. Water Research, 2020, 187, 116390.	11.3	180
53	Persulfate Oxidation of Sulfamethoxazole by Magnetic Iron-Char Composites via Nonradical Pathways: Fe(IV) Versus Surface-Mediated Electron Transfer. Environmental Science & E	10.0	180
54	Carbocatalytic activation of persulfate for removal of antibiotics in water solutions. Chemical Engineering Journal, 2016, 288, 399-405.	12.7	168

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55	Manganese oxide integrated catalytic ceramic membrane for degradation of organic pollutants using sulfate radicals. Water Research, 2019, 167, 115110.	11.3	165
56	Surface-tailored nanodiamonds as excellent metal-free catalysts for organic oxidation. Carbon, 2016, 103, 404-411.	10.3	164
57	Magnetic Ni-Co alloy encapsulated N-doped carbon nanotubes for catalytic membrane degradation of emerging contaminants. Chemical Engineering Journal, 2019, 362, 251-261.	12.7	164
58	Insights into nitrogen and boron-co-doped graphene toward high-performance peroxymonosulfate activation: Maneuverable N-B bonding configurations and oxidation pathways. Applied Catalysis B: Environmental, 2019, 253, 419-432.	20.2	163
59	Magnetic nitrogen-doped nanocarbons for enhanced metal-free catalytic oxidation: Integrated experimental and theoretical investigations for mechanism and application. Chemical Engineering Journal, 2018, 354, 507-516.	12.7	162
60	Advanced oxidation processes for water disinfection: Features, mechanisms and prospects. Chemical Engineering Journal, 2021, 409, 128207.	12.7	162
61	Disordered Atomic Packing Structure of Metallic Glass: Toward Ultrafast Hydroxyl Radicals Production Rate and Strong Electron Transfer Ability in Catalytic Performance. Advanced Functional Materials, 2017, 27, 1702258.	14.9	160
62	Unveiling the Origins of Selective Oxidation in Single-Atom Catalysis via Co–N ₄ –C Intensified Radical and Nonradical Pathways. Environmental Science & Technology, 2022, 56, 11635-11645.	10.0	159
63	CeO2 nanocrystal-modified layered MoS2/g-C3N4 as 0D/2D ternary composite for visible-light photocatalytic hydrogen evolution: Interfacial consecutive multi-step electron transfer and enhanced H2O reactant adsorption. Applied Catalysis B: Environmental, 2019, 259, 118072.	20.2	158
64	Revisiting the Graphitized Nanodiamond-Mediated Activation of Peroxymonosulfate: Singlet Oxygenation versus Electron Transfer. Environmental Science & Environmental Science & 2021, 55, 16078-16087.	10.0	155
65	Insight into the effect of lignocellulosic biomass source on the performance of biochar as persulfate activator for aqueous organic pollutants remediation: Epicarp and mesocarp of citrus peels as examples. Journal of Hazardous Materials, 2020, 399, 123043.	12.4	152
66	Catalytic membrane-based oxidation-filtration systems for organic wastewater purification: A review. Journal of Hazardous Materials, 2021, 414, 125478.	12.4	143
67	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
68	Molecular Engineering toward Pyrrolic Nâ€Rich Mâ€N ₄ (M = Cr, Mn, Fe, Co, Cu) Singleâ€Atom Sites for Enhanced Heterogeneous Fentonâ€Like Reaction. Advanced Functional Materials, 2021, 31, 2007877.	14.9	139
69	Oxygen Vacancies in Shape Controlled Cu ₂ O/Reduced Graphene Oxide/In ₂ O ₃ Hybrid for Promoted Photocatalytic Water Oxidation and Degradation of Environmental Pollutants. ACS Applied Materials & Samp; Interfaces, 2017, 9, 11678-11688.	8.0	137
70	Peroxydisulfate activation by positively polarized carbocatalyst for enhanced removal of aqueous organic pollutants. Water Research, 2019, 166, 115043.	11.3	137
71	Cobalt silicate hydroxide nanosheets in hierarchical hollow architecture with maximized cobalt active site for catalytic oxidation. Chemical Engineering Journal, 2019, 359, 79-87.	12.7	136
72	Boride-based electrocatalysts: Emerging candidates for water splitting. Nano Research, 2020, 13, 293-314.	10.4	133

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73	Boosting performance of lanthanide magnetism perovskite for advanced oxidation through lattice doping with catalytically inert element. Chemical Engineering Journal, 2019, 355, 721-730.	12.7	132
74	Rational Regulation of Co–N–C Coordination for High-Efficiency Generation of ¹ O ₂ toward Nearly 100% Selective Degradation of Organic Pollutants. Environmental Science & Technology, 2022, 56, 8833-8843.	10.0	130
75	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
76	Carbon-based single atom catalyst: Synthesis, characterization, DFT calculations. Chinese Chemical Letters, 2022, 33, 663-673.	9.0	126
77	A novel electrocatalytic filtration system with carbon nanotube supported nanoscale zerovalent copper toward ultrafast oxidation of organic pollutants. Water Research, 2021, 194, 116961.	11.3	123
78	Metal-free activation of persulfate by cubic mesoporous carbons for catalytic oxidation via radical and nonradical processes. Catalysis Today, 2018, 307, 140-146.	4.4	121
79	Facile synthesis of N-doped 3D graphene aerogel and its excellent performance in catalytic degradation of antibiotic contaminants in water. Carbon, 2019, 144, 781-790.	10.3	121
80	Interfacial-engineered cobalt@carbon hybrids for synergistically boosted evolution of sulfate radicals toward green oxidation. Applied Catalysis B: Environmental, 2019, 256, 117795.	20.2	117
81	Sustainable redox processes induced by peroxymonosulfate and metal doping on amorphous manganese dioxide for nonradical degradation of water contaminants. Applied Catalysis B: Environmental, 2021, 286, 119903.	20.2	115
82	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
83	Unzipping carbon nanotubes to nanoribbons for revealing the mechanism of nonradical oxidation by carbocatalysis. Applied Catalysis B: Environmental, 2020, 276, 119146.	20.2	108
84	Graphitic biochar catalysts from anaerobic digestion sludge for nonradical degradation of micropollutants and disinfection. Chemical Engineering Journal, 2020, 384, 123244.	12.7	105
85	UV-assisted construction of 3D hierarchical rGO/Bi2MoO6 composites for enhanced photocatalytic water oxidation. Chemical Engineering Journal, 2017, 313, 1447-1453.	12.7	102
86	Structure-dependent catalysis of cuprous oxides in peroxymonosulfate activation via nonradical pathway with a high oxidation capacity. Journal of Hazardous Materials, 2020, 385, 121518.	12.4	101
87	Graphitic Carbon Nitride-Based Z-Scheme Structure for Photocatalytic CO ₂ Reduction. Energy & Energy	5.1	100
88	Nonradical oxidation in persulfate activation by graphene-like nanosheets (GNS): Differentiating the contributions of singlet oxygen (102) and sorption-dependent electron transfer. Chemical Engineering Journal, 2020, 393, 124725.	12.7	94
89	Role of electronic properties in partition of radical and nonradical processes of carbocatalysis toward peroxymonosulfate activation. Carbon, 2019, 153, 73-80.	10.3	93
90	Self-assembly of 3D MnO2/N-doped graphene hybrid aerogel for catalytic degradation of water pollutants: Structure-dependent activity. Chemical Engineering Journal, 2019, 369, 1049-1058.	12.7	93

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91	Functional Carbon Nitride Materials in Photoâ€Fentonâ€Like Catalysis for Environmental Remediation. Advanced Functional Materials, 2022, 32, .	14.9	93
92	Nanostructured Co-Mn containing perovskites for degradation of pollutants: Insight into the activity and stability. Journal of Hazardous Materials, 2018, 349, 177-185.	12.4	92
93	Hydroxyl radical dominated elimination of plasticizers by peroxymonosulfate on metal-free boron: Kinetics and mechanisms. Water Research, 2020, 186, 116361.	11.3	92
94	Facet- and defect-dependent activity of perovskites in catalytic evolution of sulfate radicals. Applied Catalysis B: Environmental, 2020, 272, 118972.	20.2	91
95	Synergistic Adsorption and Oxidation of Ciprofloxacin by Biochar Derived from Metal-Enriched Phytoremediation Plants: Experimental and Computational Insights. ACS Applied Materials & Samp; Interfaces, 2020, 12, 53788-53798.	8.0	89
96	Efficient photocatalytic overall water splitting on metal-free 1D SWCNT/2D ultrathin C3N4 heterojunctions via novel non-resonant plasmonic effect. Applied Catalysis B: Environmental, 2020, 278, 119312.	20.2	89
97	Photocatalytic activation of peroxymonosulfate by surface-tailored carbon quantum dots. Journal of Hazardous Materials, 2020, 395, 122695.	12.4	88
98	Metal-free catalytic ozonation on surface-engineered graphene: Microwave reduction and heteroatom doping. Chemical Engineering Journal, 2019, 355, 118-129.	12.7	86
99	sp ² /sp ³ Framework from Diamond Nanocrystals: A Key Bridge of Carbonaceous Structure to Carbocatalysis. ACS Catalysis, 2019, 9, 7494-7519.	11.2	86
100	Electrocatalysts for acidic oxygen evolution reaction: Achievements and perspectives. Nano Energy, 2020, 78, 105392.	16.0	86
101	Ultra-sustainable Fe78Si9B13 metallic glass as a catalyst for activation of persulfate on methylene blue degradation under UV-Vis light. Scientific Reports, 2016, 6, 38520.	3.3	84
102	Microplastics remediation in aqueous systems: Strategies and technologies. Water Research, 2021, 198, 117144.	11.3	84
103	Fine-Tuning Radical/Nonradical Pathways on Graphene by Porous Engineering and Doping Strategies. ACS Catalysis, 2021, 11, 4848-4861.	11.2	82
104	Interfacial CoAl2O4 from ZIF-67@γ-Al2O3 pellets toward catalytic activation of peroxymonosulfate for metronidazole removal. Chemical Engineering Journal, 2020, 397, 125339.	12.7	82
105	Adsorption of cerium (III) by HKUST-1 metal-organic framework from aqueous solution. Journal of Colloid and Interface Science, 2019, 542, 421-428.	9.4	81
106	Photochemical degradation of phenol solutions on Co3O4 nanorods with sulfate radicals. Catalysis Today, 2015, 258, 576-584.	4.4	80
107	Fineâ€Tuning Surface Properties of Perovskites via Nanocompositing with Inert Oxide toward Developing Superior Catalysts for Advanced Oxidation. Advanced Functional Materials, 2018, 28, 1804654.	14.9	80
108	New insight to the role of edges and heteroatoms in nanocarbons for oxygen reduction reaction. Nano Energy, 2019, 66, 104096.	16.0	79

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109	V2O5 nanodot-decorated laminar C3N4 for sustainable photodegradation of amoxicillin under solar light. Applied Catalysis B: Environmental, 2022, 303, 120903.	20.2	79
110	Catalysis of a Single Transition Metal Site for Water Oxidation: From Mononuclear Molecules to Single Atoms. Advanced Materials, 2020, 32, e1904037.	21.0	78
111	Coupling hydrothermal and photothermal single-atom catalysis toward excellent water splitting to hydrogen. Applied Catalysis B: Environmental, 2021, 283, 119660.	20.2	77
112	Cobalt porphyrins supported on carbon nanotubes as model catalysts of metal-N4/C sites for oxygen electrocatalysis. Journal of Energy Chemistry, 2021, 53, 77-81.	12.9	77
113	Magnetic biochar catalysts from anaerobic digested sludge: Production, application and environment impact. Environment International, 2019, 126, 302-308.	10.0	76
114	Novel polyoxometalate@g-C3N4 hybrid photocatalysts for degradation of dyes and phenolics. Journal of Colloid and Interface Science, 2015, 456, 15-21.	9.4	75
115	Degradation of Microplastics by a Thermal Fenton Reaction. ACS ES&T Engineering, 2022, 2, 110-120.	7.6	75
116	Kinetics and mechanism of synergistic adsorption and persulfate activation by N-doped porous carbon for antibiotics removals in single and binary solutions. Journal of Hazardous Materials, 2022, 423, 127083.	12.4	74
117	The mechanistic difference of 1T-2H MoS2 homojunctions in persulfates activation: Structure-dependent oxidation pathways. Applied Catalysis B: Environmental, 2021, 297, 120460.	20.2	73
118	Accelerating radical generation from peroxymonosulfate by confined variable Co species toward ciprofloxacin mineralization: ROS quantification and mechanisms elucidation. Applied Catalysis B: Environmental, 2022, 315, 121542.	20.2	72
119	Preparation of a p-n heterojunction BiFeO3@TiO2 photocatalyst with a core–shell structure for visible-light photocatalytic degradation. Chinese Journal of Catalysis, 2017, 38, 1052-1062.	14.0	70
120	Insights into the oxidation of organic contaminants by iron nanoparticles encapsulated within boron and nitrogen co-doped carbon nanoshell: Catalyzed Fenton-like reaction at natural pH. Environment International, 2019, 128, 77-88.	10.0	70
121	Metal-free graphene-carbon nitride hybrids for photodegradation of organic pollutants in water. Catalysis Today, 2015, 258, 668-675.	4.4	69
122	Postsynthesis Growth of CoOOH Nanostructure on SrCo _{0.6} Ti _{0.4} O _{3â^Î} Perovskite Surface for Enhanced Degradation of Aqueous Organic Contaminants. ACS Sustainable Chemistry and Engineering, 2018, 6, 15737-15748.	6.7	69
123	Landfill leachate treatment by persulphate related advanced oxidation technologies. Journal of Hazardous Materials, 2021, 418, 126355.	12.4	69
124	Degradation of aniline by electrochemical activation of peroxydisulfate at MWCNT cathode: The proofed concept of nonradical oxidation process. Chemosphere, 2018, 206, 432-438.	8.2	68
125	Selective formation of reactive oxygen species in peroxymonosulfate activation by metal-organic framework-derived membranes: A defect engineering-dependent study. Applied Catalysis B: Environmental, 2022, 312, 121419.	20.2	68
126	Efficient removal of organic and bacterial pollutants by Ag-La0.8Ca0.2Fe0.94O3-δ perovskite via catalytic peroxymonosulfate activation. Journal of Hazardous Materials, 2018, 356, 53-60.	12.4	67

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127	Origins of boron catalysis in peroxymonosulfate activation and advanced oxidation. Journal of Materials Chemistry A, 2019, 7, 23904-23913.	10.3	67
128	Biomass-derived functional porous carbons for adsorption and catalytic degradation of binary micropollutants in water. Journal of Hazardous Materials, 2020, 389, 121881.	12.4	67
129	Fe containing template derived atomic Fe–N–C to boost Fenton-like reaction and charge migration analysis on highly active Fe–N ₄ sites. Journal of Materials Chemistry A, 2021, 9, 14793-14805.	10.3	66
130	Synergy of nitrogen doping and structural defects on hierarchically porous carbons toward catalytic oxidation via a non-radical pathway. Carbon, 2019, 155, 268-278.	10.3	65
131	Edge-Rich Bicrystalline 1T/2H-MoS ₂ Cocatalyst-Decorated {110} Terminated CeO ₂ Nanorods for Photocatalytic Hydrogen Evolution. ACS Applied Materials & Samp; Interfaces, 2021, 13, 35818-35827.	8.0	65
132	Quasi-MOF derivative-based electrode for efficient electro-Fenton oxidation. Journal of Hazardous Materials, 2021, 401, 123423.	12.4	63
133	Nitrogen-doped carbon nanotubes enhanced Fenton chemistry: Role of near-free iron(III) for sustainable iron(III)/iron(II) cycles. Water Research, 2022, 210, 117984.	11.3	63
134	Size-Tailored Porous Spheres of Manganese Oxides for Catalytic Oxidation via Peroxymonosulfate Activation. Journal of Physical Chemistry C, 2016, 120, 16871-16878.	3.1	62
135	Peroxymonosulfate activation by Fe3O4-MnO2/CNT nanohybrid electroactive filter towards ultrafast micropollutants decontamination: Performance and mechanism. Journal of Hazardous Materials, 2022, 423, 127111.	12.4	62
136	Chemical activation of nitrogen and sulfur co-doped graphene as defect-rich carbocatalyst for electrochemical water splitting. Carbon, 2019, 148, 540-549.	10.3	61
137	Nanostructured manganese oxides: natural/artificial formation and their induced catalysis for wastewater remediation. Environmental Science: Nano, 2020, 7, 368-396.	4.3	61
138	Co/N co-doped carbonized wood sponge with 3D porous framework for efficient peroxymonosulfate activation: Performance and internal mechanism. Journal of Hazardous Materials, 2022, 421, 126735.	12.4	61
139	Criteria of active sites in nonradical persulfate activation process from integrated experimental and theoretical investigations: boron–nitrogen-co-doped nanocarbon-mediated peroxydisulfate activation as an example. Environmental Science: Nano, 2020, 7, 1899-1911.	4.3	60
140	Superstructures with Atomic-Level Arranged Perovskite and Oxide Layers for Advanced Oxidation with an Enhanced Non-Free Radical Pathway. ACS Sustainable Chemistry and Engineering, 2022, 10, 1899-1909.	6.7	59
141	Crystal transformation of 2D tungstic acid H2WO4 to WO3 for enhanced photocatalytic water oxidation. Journal of Colloid and Interface Science, 2018, 514, 576-583.	9.4	58
142	Piezoelectric activation of peroxymonosulfate by MoS ₂ nanoflowers for the enhanced degradation of aqueous organic pollutants. Environmental Science: Nano, 2021, 8, 784-794.	4.3	57
143	Bismuth-based complex oxides for photocatalytic applications in environmental remediation and water splitting: A review. Science of the Total Environment, 2022, 804, 150215.	8.0	57
144	Enzyme-mimicking single-atom FeN4 sites for enhanced photo-Fenton-like reactions. Applied Catalysis B: Environmental, 2022, 310, 121327.	20.2	57

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145	Carbon dots based photocatalysis for environmental applications. Journal of Environmental Chemical Engineering, 2022, 10, 107336.	6.7	55
146	Catalytic degradation of antibiotics by metal-free catalysis over nitrogen-doped graphene. Catalysis Today, 2020, 357, 341-349.	4.4	54
147	High-performance porous graphene from synergetic nitrogen doping and physical activation for advanced nonradical oxidation. Journal of Hazardous Materials, 2020, 381, 121010.	12.4	54
148	Facile Synthesis of High-Performance Nitrogen-Doped Hierarchically Porous Carbon for Catalytic Oxidation. ACS Sustainable Chemistry and Engineering, 2020, 8, 4236-4243.	6.7	52
149	Improving the Structure Stability of LiNi _{0.8} Double Modification of Tantalum Surface Coating and Doping. ACS Applied Energy Materials, 2021, 4, 8641-8652.	5.1	52
150	Crystallinity and valence states of manganese oxides in Fenton-like polymerization of phenolic pollutants for carbon recycling against degradation. Applied Catalysis B: Environmental, 2022, 315, 121593.	20.2	52
151	Mechanistic Investigations of the Pyridinic N–Co Structures in Co Embedded N-Doped Carbon Nanotubes for Catalytic Ozonation. ACS ES&T Engineering, 2021, 1, 32-45.	7.6	50
152	Advances of piezoelectric nanomaterials for applications in advanced oxidation technologies. Current Opinion in Chemical Engineering, 2021, 33, 100693.	7.8	49
153	Biomass-derived pyrolytic carbons accelerated Fe(III)/Fe(II) redox cycle for persulfate activation: Pyrolysis temperature-depended performance and mechanisms. Applied Catalysis B: Environmental, 2021, 297, 120446.	20.2	48
154	Enhanced light-driven water splitting by fast electron transfer in 2D/2D reduced graphene oxide/tungsten trioxide heterojunction with preferential facets. Journal of Colloid and Interface Science, 2019, 555, 413-422.	9.4	47
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