

Xiaoguang Duan

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232
papers

15,941
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66
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122
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244
ext. papers

23,055
ext. citations

12.1
avg, IF

7.6
L-index

#	Paper	IF	Citations
232	Metal-Free Carbocatalysis in Advanced Oxidation Reactions. <i>Accounts of Chemical Research</i> , 2018 , 51, 678-687	24.3	573
231	N-Doping-Induced Nonradical Reaction on Single-Walled Carbon Nanotubes for Catalytic Phenol Oxidation. <i>ACS Catalysis</i> , 2015 , 5, 553-559	13.1	525
230	Nitrogen-doped graphene for generation and evolution of reactive radicals by metal-free catalysis. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 4169-78	9.5	471
229	Catalytic Removal of Aqueous Contaminants on N-Doped Graphitic Biochars: Inherent Roles of Adsorption and Nonradical Mechanisms. <i>Environmental Science & Technology</i> , 2018 , 52, 8649-8658	10.3	460
228	Insights into Heterogeneous Catalysis of Persulfate Activation on Dimensional-Structured Nanocarbons. <i>ACS Catalysis</i> , 2015 , 5, 4629-4636	13.1	450
227	Sulfur and Nitrogen Co-Doped Graphene for Metal-Free Catalytic Oxidation Reactions. <i>Small</i> , 2015 , 11, 3036-44	11	412
226	Persulfate Activation on Crystallographic Manganese Oxides: Mechanism of Singlet Oxygen Evolution for Nonradical Selective Degradation of Aqueous Contaminants. <i>Environmental Science & Technology</i> , 2019 , 53, 307-315	10.3	408
225	Nonradical reactions in environmental remediation processes: Uncertainty and challenges. <i>Applied Catalysis B: Environmental</i> , 2018 , 224, 973-982	21.8	397
224	Occurrence of radical and nonradical pathways from carbocatalysts for aqueous and nonaqueous catalytic oxidation. <i>Applied Catalysis B: Environmental</i> , 2016 , 188, 98-105	21.8	386
223	Recent advances in transition metal-based electrocatalysts for alkaline hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 14971-15005	13	281
222	Surface controlled generation of reactive radicals from persulfate by carbocatalysis on nanodiamonds. <i>Applied Catalysis B: Environmental</i> , 2016 , 194, 7-15	21.8	277
221	Insights into perovskite-catalyzed peroxymonosulfate activation: Maneuverable cobalt sites for promoted evolution of sulfate radicals. <i>Applied Catalysis B: Environmental</i> , 2018 , 220, 626-634	21.8	274
220	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. <i>Environmental Science: Nano</i> , 2017 , 4, 315-324	7.1	272
219	Identification and Regulation of Active Sites on Nanodiamonds: Establishing a Highly Efficient Catalytic System for Oxidation of Organic Contaminants. <i>Advanced Functional Materials</i> , 2018 , 28, 1705295	15.6	238
218	Facile assembly of Bi ₂ O ₃ /Bi ₂ S ₃ /MoS ₂ n-p heterojunction with layered n-Bi ₂ O ₃ and p-MoS ₂ for enhanced photocatalytic water oxidation and pollutant degradation. <i>Applied Catalysis B: Environmental</i> , 2017 , 200, 47-55	21.8	234
217	Nanocarbons in different structural dimensions (0BD) for phenol adsorption and metal-free catalytic oxidation. <i>Applied Catalysis B: Environmental</i> , 2015 , 179, 352-362	21.8	220
216	0D (MoS ₂)/2D (g-C ₃ N ₄) heterojunctions in Z-scheme for enhanced photocatalytic and electrochemical hydrogen evolution. <i>Applied Catalysis B: Environmental</i> , 2018 , 228, 64-74	21.8	220

215	Unveiling the active sites of graphene-catalyzed peroxymonosulfate activation. <i>Carbon</i> , 2016 , 107, 371-374	10.4	209
214	Facile synthesis of nitrogen-doped graphene via low-temperature pyrolysis: The effects of precursors and annealing ambience on metal-free catalytic oxidation. <i>Carbon</i> , 2017 , 115, 649-658	10.3	203
213	Activation of Peroxydisulfate on Carbon Nanotubes: Electron-Transfer Mechanism. <i>Environmental Science & Technology</i> , 2019 , 53, 14595-14603	21.8	198
212	A new magnetic nano zero-valent iron encapsulated in carbon spheres for oxidative degradation of phenol. <i>Applied Catalysis B: Environmental</i> , 2015 , 172-173, 73-81	5.8	195
211	Insights into N-doping in single-walled carbon nanotubes for enhanced activation of superoxides: a mechanistic study. <i>Chemical Communications</i> , 2015 , 51, 15249-52	21.8	192
210	Activation of peroxymonosulfate by carbonaceous oxygen groups: experimental and density functional theory calculations. <i>Applied Catalysis B: Environmental</i> , 2016 , 198, 295-302	10.3	188
209	The Intrinsic Nature of Persulfate Activation and N-Doping in Carbocatalysis. <i>Environmental Science & Technology</i> , 2020 , 54, 6438-6447	13.1	186
208	Mixed Conducting Perovskite Materials as Superior Catalysts for Fast Aqueous-Phase Advanced Oxidation: A Mechanistic Study. <i>ACS Catalysis</i> , 2017 , 7, 388-397	21.8	179
207	Z-scheme plasmonic Ag decorated WO ₃ /Bi ₂ WO ₆ hybrids for enhanced photocatalytic abatement of chlorinated-VOCs under solar light irradiation. <i>Applied Catalysis B: Environmental</i> , 2019 , 242, 76-84	12.5	175
206	N-doped graphitic biochars from C-phycoyanin extracted Spirulina residue for catalytic persulfate activation toward nonradical disinfection and organic oxidation. <i>Water Research</i> , 2019 , 159, 77-86	10.3	169
205	Insights into the Electron-Transfer Regime of Peroxydisulfate Activation on Carbon Nanotubes: The Role of Oxygen Functional Groups. <i>Environmental Science & Technology</i> , 2020 , 54, 1267-1275	14.7	165
204	New insights into heterogeneous generation and evolution processes of sulfate radicals for phenol degradation over one-dimensional MnO ₂ nanostructures. <i>Chemical Engineering Journal</i> , 2015 , 266, 12-20	58.5	164
203	Single-atom catalysis in advanced oxidation processes for environmental remediation. <i>Chemical Society Reviews</i> , 2021 , 50, 5281-5322	9.5	162
202	Nitrogen- and Sulfur-Codoped Hierarchically Porous Carbon for Adsorptive and Oxidative Removal of Pharmaceutical Contaminants. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 7184-93	9.5	162
201	Sub-5 nm Ultra-Fine FeP Nanodots as Efficient Co-Catalysts Modified Porous g-CN for Precious-Metal-Free Photocatalytic Hydrogen Evolution under Visible Light. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 5651-5660	12.8	160
200	Heterogeneous activation of peroxymonosulfate by amorphous boron for degradation of bisphenol S. <i>Journal of Hazardous Materials</i> , 2017 , 322, 532-539	21.8	157
199	Nanodiamonds in sp ² /sp ³ configuration for radical to nonradical oxidation: Core-shell layer dependence. <i>Applied Catalysis B: Environmental</i> , 2018 , 222, 176-181	13	156
198	Low temperature combustion synthesis of nitrogen-doped graphene for metal-free catalytic oxidation. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 3432-3440		

197	N-Doped Graphene from Metal-Organic Frameworks for Catalytic Oxidation of p-Hydroxybenzoic Acid: N-Functionality and Mechanism. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 2693-2701	8.3	152
196	Nitrogen-doped bamboo-like carbon nanotubes with Ni encapsulation for persulfate activation to remove emerging contaminants with excellent catalytic stability. <i>Chemical Engineering Journal</i> , 2018 , 332, 398-408	14.7	141
195	Degradation of Cosmetic Microplastics via Functionalized Carbon Nanosprings. <i>Matter</i> , 2019 , 1, 745-758	12.7	140
194	Carbocatalytic activation of persulfate for removal of antibiotics in water solutions. <i>Chemical Engineering Journal</i> , 2016 , 288, 399-405	14.7	135
193	Potential Difference Driving Electron Transfer Defective Carbon Nanotubes toward Selective Oxidation of Organic Micropollutants. <i>Environmental Science & Technology</i> , 2020 , 54, 8464-8472	10.3	133
192	Surface-tailored nanodiamonds as excellent metal-free catalysts for organic oxidation. <i>Carbon</i> , 2016 , 103, 404-411	10.4	127
191	Effects of nitrogen-, boron-, and phosphorus-doping or codoping on metal-free graphene catalysis. <i>Catalysis Today</i> , 2015 , 249, 184-191	5.3	123
190	Porous Carbons: Structure-Oriented Design and Versatile Applications. <i>Advanced Functional Materials</i> , 2020 , 30, 1909265	15.6	119
189	Disordered Atomic Packing Structure of Metallic Glass: Toward Ultrafast Hydroxyl Radicals Production Rate and Strong Electron Transfer Ability in Catalytic Performance. <i>Advanced Functional Materials</i> , 2017 , 27, 1702258	15.6	118
188	Magnetic nitrogen-doped nanocarbons for enhanced metal-free catalytic oxidation: Integrated experimental and theoretical investigations for mechanism and application. <i>Chemical Engineering Journal</i> , 2018 , 354, 507-516	14.7	102
187	Oxygen Vacancies in Shape Controlled CuO/Reduced Graphene Oxide/InO Hybrid for Promoted Photocatalytic Water Oxidation and Degradation of Environmental Pollutants. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 11678-11688	9.5	101
186	CeO ₂ nanocrystal-modified layered MoS ₂ /g-C ₃ N ₄ as 0D/2D ternary composite for visible-light photocatalytic hydrogen evolution: Interfacial consecutive multi-step electron transfer and enhanced H ₂ O reactant adsorption. <i>Applied Catalysis B: Environmental</i> , 2019 , 259, 118072	21.8	97
185	Insights into nitrogen and boron-co-doped graphene toward high-performance peroxydisulfate activation: Maneuverable N-B bonding configurations and oxidation pathways. <i>Applied Catalysis B: Environmental</i> , 2019 , 253, 419-432	21.8	94
184	Photocatalytic conversion of lignocellulosic biomass to valuable products. <i>Green Chemistry</i> , 2019 , 21, 4266-4289	10	93
183	Role of oxygen vacancies and Mn sites in hierarchical Mn ₂ O ₃ /LaMnO ₃ -perovskite composites for aqueous organic pollutants decontamination. <i>Applied Catalysis B: Environmental</i> , 2019 , 245, 546-554	21.8	91
182	Metal-free activation of persulfate by cubic mesoporous carbons for catalytic oxidation via radical and nonradical processes. <i>Catalysis Today</i> , 2018 , 307, 140-146	5.3	91
181	Engineered carbon supported single iron atom sites and iron clusters from Fe-rich Enteromorpha for Fenton-like reactions via nonradical pathways. <i>Applied Catalysis B: Environmental</i> , 2021 , 287, 119963	21.8	90
180	Magnetic Ni-Co alloy encapsulated N-doped carbon nanotubes for catalytic membrane degradation of emerging contaminants. <i>Chemical Engineering Journal</i> , 2019 , 362, 251-261	14.7	89

179	UV-assisted construction of 3D hierarchical rGO/Bi ₂ MoO ₆ composites for enhanced photocatalytic water oxidation. <i>Chemical Engineering Journal</i> , 2017 , 313, 1447-1453	14.7	88
178	Cobalt silicate hydroxide nanosheets in hierarchical hollow architecture with maximized cobalt active site for catalytic oxidation. <i>Chemical Engineering Journal</i> , 2019 , 359, 79-87	14.7	88
177	Fast and Long-Lasting Iron(III) Reduction by Boron Toward Green and Accelerated Fenton Chemistry. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 16517-16526	16.4	87
176	Peroxydisulfate activation by positively polarized carbocatalyst for enhanced removal of aqueous organic pollutants. <i>Water Research</i> , 2019 , 166, 115043	12.5	86
175	Manganese oxide integrated catalytic ceramic membrane for degradation of organic pollutants using sulfate radicals. <i>Water Research</i> , 2019 , 167, 115110	12.5	86
174	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. <i>Journal of Hazardous Materials</i> , 2020 , 399, 123043	12.8	79
173	Facile synthesis of N-doped 3D graphene aerogel and its excellent performance in catalytic degradation of antibiotic contaminants in water. <i>Carbon</i> , 2019 , 144, 781-790	10.4	79
172	Boosting performance of lanthanide magnetism perovskite for advanced oxidation through lattice doping with catalytically inert element. <i>Chemical Engineering Journal</i> , 2019 , 355, 721-730	14.7	78
171	Tailored synthesis of active reduced graphene oxides from waste graphite: Structural defects and pollutant-dependent reactive radicals in aqueous organics decontamination. <i>Applied Catalysis B: Environmental</i> , 2018 , 229, 71-80	21.8	77
170	Roles of structure defect, oxygen groups and heteroatom doping on carbon in nonradical oxidation of water contaminants. <i>Water Research</i> , 2020 , 185, 116244	12.5	77
169	Iridium-based nanomaterials for electrochemical water splitting. <i>Nano Energy</i> , 2020 , 78, 105270	17.1	73
168	Production, properties, and catalytic applications of sludge derived biochar for environmental remediation. <i>Water Research</i> , 2020 , 187, 116390	12.5	70
167	Boride-based electrocatalysts: Emerging candidates for water splitting. <i>Nano Research</i> , 2020 , 13, 293-314	14.0	69
166	Nanostructured Co-Mn containing perovskites for degradation of pollutants: Insight into the activity and stability. <i>Journal of Hazardous Materials</i> , 2018 , 349, 177-185	12.8	66
165	Photochemical degradation of phenol solutions on Co ₃ O ₄ nanorods with sulfate radicals. <i>Catalysis Today</i> , 2015 , 258, 576-584	5.3	64
164	Novel polyoxometalate@g-C ₃ N ₄ hybrid photocatalysts for degradation of dyes and phenolics. <i>Journal of Colloid and Interface Science</i> , 2015 , 456, 15-21	9.3	63
163	Interfacial-engineered cobalt@carbon hybrids for synergistically boosted evolution of sulfate radicals toward green oxidation. <i>Applied Catalysis B: Environmental</i> , 2019 , 256, 117795	21.8	62
162	Occurrence of both hydroxyl radical and surface oxidation pathways in N-doped layered nanocarbons for aqueous catalytic ozonation. <i>Applied Catalysis B: Environmental</i> , 2019 , 254, 283-291	21.8	61

161	Ultra-sustainable FeSiB metallic glass as a catalyst for activation of persulfate on methylene blue degradation under UV-Vis light. <i>Scientific Reports</i> , 2016 , 6, 38520	4.9	60
160	Metal-free graphene-carbon nitride hybrids for photodegradation of organic pollutants in water. <i>Catalysis Today</i> , 2015 , 258, 668-675	5.3	58
159	Graphitic biochar catalysts from anaerobic digestion sludge for nonradical degradation of micropollutants and disinfection. <i>Chemical Engineering Journal</i> , 2020 , 384, 123244	14.7	58
158	Remediation of antibiotic wastewater by coupled photocatalytic and persulfate oxidation system: A critical review. <i>Journal of Hazardous Materials</i> , 2021 , 408, 124461	12.8	55
157	Self-assembly of 3D MnO ₂ /N-doped graphene hybrid aerogel for catalytic degradation of water pollutants: Structure-dependent activity. <i>Chemical Engineering Journal</i> , 2019 , 369, 1049-1058	14.7	53
156	Advanced oxidation processes for water disinfection: Features, mechanisms and prospects. <i>Chemical Engineering Journal</i> , 2021 , 409, 128207	14.7	53
155	Size-Tailored Porous Spheres of Manganese Oxides for Catalytic Oxidation via Peroxymonosulfate Activation. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 16871-16878	3.8	52
154	Adsorption of cerium (III) by HKUST-1 metal-organic framework from aqueous solution. <i>Journal of Colloid and Interface Science</i> , 2019 , 542, 421-428	9.3	51
153	Magnetic biochar catalysts from anaerobic digested sludge: Production, application and environment impact. <i>Environment International</i> , 2019 , 126, 302-308	12.9	51
152	sp ² /sp ³ Framework from Diamond Nanocrystals: A Key Bridge of Carbonaceous Structure to Carbocatalysis. <i>ACS Catalysis</i> , 2019 , 9, 7494-7519	13.1	50
151	Structure-dependent catalysis of cuprous oxides in peroxymonosulfate activation via nonradical pathway with a high oxidation capacity. <i>Journal of Hazardous Materials</i> , 2020 , 385, 121518	12.8	50
150	Metal-free catalytic ozonation on surface-engineered graphene: Microwave reduction and heteroatom doping. <i>Chemical Engineering Journal</i> , 2019 , 355, 118-129	14.7	49
149	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. <i>Environment International</i> , 2019 , 128, 77-88	12.9	48
148	Facet- and defect-dependent activity of perovskites in catalytic evolution of sulfate radicals. <i>Applied Catalysis B: Environmental</i> , 2020 , 272, 118972	21.8	48
147	Degradation of aniline by electrochemical activation of peroxydisulfate at MWCNT cathode: The proofed concept of nonradical oxidation process. <i>Chemosphere</i> , 2018 , 206, 432-438	8.4	48
146	Unzipping carbon nanotubes to nanoribbons for revealing the mechanism of nonradical oxidation by carbocatalysis. <i>Applied Catalysis B: Environmental</i> , 2020 , 276, 119146	21.8	48
145	Efficient removal of organic and bacterial pollutants by Ag-LaCaFeO perovskite via catalytic peroxymonosulfate activation. <i>Journal of Hazardous Materials</i> , 2018 , 356, 53-60	12.8	48
144	Nonradical oxidation in persulfate activation by graphene-like nanosheets (GNS): Differentiating the contributions of singlet oxygen (¹ O ₂) and sorption-dependent electron transfer. <i>Chemical Engineering Journal</i> , 2020 , 393, 124725	14.7	47

143	Role of electronic properties in partition of radical and nonradical processes of carbocatalysis toward peroxymonosulfate activation. <i>Carbon</i> , 2019 , 153, 73-80	10.4	47
142	Efficient photocatalytic overall water splitting on metal-free 1D SWCNT/2D ultrathin C ₃ N ₄ heterojunctions via novel non-resonant plasmonic effect. <i>Applied Catalysis B: Environmental</i> , 2020 , 278, 119312	21.8	46
141	Catalysis of a Single Transition Metal Site for Water Oxidation: From Mononuclear Molecules to Single Atoms. <i>Advanced Materials</i> , 2020 , 32, e1904037	24	46
140	Cobalt porphyrins supported on carbon nanotubes as model catalysts of metal-N ₄ /C sites for oxygen electrocatalysis. <i>Journal of Energy Chemistry</i> , 2021 , 53, 77-81	12	46
139	Preparation of a p-n heterojunction BiFeO ₃ @TiO ₂ photocatalyst with a core-shell structure for visible-light photocatalytic degradation. <i>Chinese Journal of Catalysis</i> , 2017 , 38, 1052-1062	11.3	45
138	New insight to the role of edges and heteroatoms in nanocarbons for oxygen reduction reaction. <i>Nano Energy</i> , 2019 , 66, 104096	17.1	44
137	Fine-Tuning Surface Properties of Perovskites via Nanocompositing with Inert Oxide toward Developing Superior Catalysts for Advanced Oxidation. <i>Advanced Functional Materials</i> , 2018 , 28, 1804654	15.6	44
136	Molecular Engineering toward Pyrrolic N-Rich M-N ₄ (M = Cr, Mn, Fe, Co, Cu) Single-Atom Sites for Enhanced Heterogeneous Fenton-Like Reaction. <i>Advanced Functional Materials</i> , 2021 , 31, 2007877	15.6	43
135	Postsynthesis Growth of CoOOH Nanostructure on SrCo _{0.6} Ti _{0.4} O ₃ Perovskite Surface for Enhanced Degradation of Aqueous Organic Contaminants. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 15737-15748	8.3	43
134	Graphitic Carbon Nitride-Based Z-Scheme Structure for Photocatalytic CO ₂ Reduction. <i>Energy & Fuels</i> , 2021 , 35, 7-24	4.1	42
133	Biomass-derived functional porous carbons for adsorption and catalytic degradation of binary micropollutants in water. <i>Journal of Hazardous Materials</i> , 2020 , 389, 121881	12.8	40
132	Catalytic membrane-based oxidation-filtration systems for organic wastewater purification: A review. <i>Journal of Hazardous Materials</i> , 2021 , 414, 125478	12.8	39
131	Synergy of nitrogen doping and structural defects on hierarchically porous carbons toward catalytic oxidation via a non-radical pathway. <i>Carbon</i> , 2019 , 155, 268-278	10.4	38
130	Coupling hydrothermal and photothermal single-atom catalysis toward excellent water splitting to hydrogen. <i>Applied Catalysis B: Environmental</i> , 2021 , 283, 119660	21.8	38
129	Origins of Electron-Transfer Regime in Persulfate-Based Nonradical Oxidation Processes. <i>Environmental Science & Technology</i> , 2021 ,	10.3	38
128	Three-Dimensional BiOI/BiOX (X = Cl or Br) Nanohybrids for Enhanced Visible-Light Photocatalytic Activity. <i>Nanomaterials</i> , 2017 , 7,	5.4	37
127	Nanocarbon-Based Catalytic Ozonation for Aqueous Oxidation: Engineering Defects for Active Sites and Tunable Reaction Pathways. <i>ACS Catalysis</i> , 2020 , 10, 13383-13414	13.1	36
126	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. <i>Environmental Science: Nano</i> , 2020 , 7, 1899-1911	7.1	36

125	Photocatalytic activation of peroxymonosulfate by surface-tailored carbon quantum dots. <i>Journal of Hazardous Materials</i> , 2020 , 395, 122695	12.8	36
124	Interfacial CoAl ₂ O ₄ from ZIF-67@Al ₂ O ₃ pellets toward catalytic activation of peroxymonosulfate for metronidazole removal. <i>Chemical Engineering Journal</i> , 2020 , 397, 125339	14.7	35
123	Synergistic Adsorption and Oxidation of Ciprofloxacin by Biochar Derived from Metal-Enriched Phytoremediation Plants: Experimental and Computational Insights. <i>ACS Applied Materials & Interfaces</i> , 2020 ,	9.5	35
122	Sustainable redox processes induced by peroxymonosulfate and metal doping on amorphous manganese dioxide for nonradical degradation of water contaminants. <i>Applied Catalysis B: Environmental</i> , 2021 , 286, 119903	21.8	35
121	Chemical activation of nitrogen and sulfur co-doped graphene as defect-rich carbocatalyst for electrochemical water splitting. <i>Carbon</i> , 2019 , 148, 540-549	10.4	34
120	Hydroxyl radical dominated elimination of plasticizers by peroxymonosulfate on metal-free boron: Kinetics and mechanisms. <i>Water Research</i> , 2020 , 186, 116361	12.5	34
119	Origins of boron catalysis in peroxymonosulfate activation and advanced oxidation. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 23904-23913	13	33
118	Crystal transformation of 2D tungstic acid H ₂ O to WO ₃ for enhanced photocatalytic water oxidation. <i>Journal of Colloid and Interface Science</i> , 2018 , 514, 576-583	9.3	33
117	Enhanced light-driven water splitting by fast electron transfer in 2D/2D reduced graphene oxide/tungsten trioxide heterojunction with preferential facets. <i>Journal of Colloid and Interface Science</i> , 2019 , 555, 413-422	9.3	33
116	High-performance porous graphene from synergetic nitrogen doping and physical activation for advanced nonradical oxidation. <i>Journal of Hazardous Materials</i> , 2020 , 381, 121010	12.8	33
115	Facile Synthesis of High-Performance Nitrogen-Doped Hierarchically Porous Carbon for Catalytic Oxidation. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 4236-4243	8.3	31
114	Nanostructured manganese oxides: natural/artificial formation and their induced catalysis for wastewater remediation. <i>Environmental Science: Nano</i> , 2020 , 7, 368-396	7.1	31
113	Electrocatalysts for acidic oxygen evolution reaction: Achievements and perspectives. <i>Nano Energy</i> , 2020 , 78, 105392	17.1	31
112	A novel electrocatalytic filtration system with carbon nanotube supported nanoscale zerovalent copper toward ultrafast oxidation of organic pollutants. <i>Water Research</i> , 2021 , 194, 116961	12.5	31
111	Persulfate Oxidation of Sulfamethoxazole by Magnetic Iron-Char Composites via Nonradical Pathways: Fe(IV) Versus Surface-Mediated Electron Transfer. <i>Environmental Science & Technology</i> , 2021 , 55, 10077-10086	10.3	31
110	Density Functional Theory Calculations for Insight into the Heterocatalyst Reactivity and Mechanism in Persulfate-Based Advanced Oxidation Reactions. <i>ACS Catalysis</i> , 2021 , 11, 11129-11159	13.1	31
109	Zn phthalocyanine/carbon nitride heterojunction for visible light photoelectrocatalytic conversion of CO ₂ to methanol. <i>Journal of Catalysis</i> , 2019 , 371, 214-223	7.3	30
108	Carbon-based single atom catalyst: Synthesis, characterization, DFT calculations. <i>Chinese Chemical Letters</i> , 2021 ,	8.1	29

107	Catalytic degradation of antibiotics by metal-free catalysis over nitrogen-doped graphene. <i>Catalysis Today</i> , 2020 , 357, 341-349	5.3	29
106	Shape-controlled Co ₃ O ₄ catalysts for advanced oxidation of phenolic contaminants in aqueous solutions. <i>Separation and Purification Technology</i> , 2017 , 186, 213-217	8.3	28
105	Quasi-MOF derivative-based electrode for efficient electro-Fenton oxidation. <i>Journal of Hazardous Materials</i> , 2021 , 401, 123423	12.8	28
104	Graphitic nitride-catalyzed advanced oxidation processes (AOPs) for landfill leachate treatment: A mini review. <i>Chemical Engineering Research and Design</i> , 2020 , 139, 230-240	5.5	27
103	Nickel in hierarchically structured nitrogen-doped graphene for robust and promoted degradation of antibiotics. <i>Journal of Cleaner Production</i> , 2019 , 218, 202-211	10.3	26
102	Edge-Rich Bicrystalline 1T/2H-MoS ₂ Cocatalyst-Decorated {110} Terminated CeO Nanorods for Photocatalytic Hydrogen Evolution. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 35818-35827	9.5	26
101	Enhanced CO ₂ Adsorption and Selectivity of CO ₂ /N ₂ on Amino-MIL-53(Al) Synthesized by Polar Co-solvents. <i>Energy & Fuels</i> , 2018 , 32, 4502-4510	4.1	25
100	Fine-Tuning Radical/Nonradical Pathways on Graphene by Porous Engineering and Doping Strategies. <i>ACS Catalysis</i> , 2021 , 11, 4848-4861	13.1	24
99	Engineered Co ₂ AlO ₄ /CoAl ₂ O ₄ @Al ₂ O ₃ monolithic catalysts for peroxymonosulfate activation: Co ³⁺ /Co ²⁺ and O _{Defect} /O _{Lattice} ratios dependence and mechanism. <i>Chemical Engineering Journal</i> , 2021 , 409, 128162	14.7	24
98	Piezoelectric activation of peroxymonosulfate by MoS ₂ nanoflowers for the enhanced degradation of aqueous organic pollutants. <i>Environmental Science: Nano</i> , 2021 , 8, 784-794	7.1	21
97	Functional carbon nitride materials for water oxidation: from heteroatom doping to interface engineering. <i>Nanoscale</i> , 2020 , 12, 6937-6952	7.7	20
96	V ₂ O ₅ nanodot-decorated laminar C ₃ N ₄ for sustainable photodegradation of amoxicillin under solar light. <i>Applied Catalysis B: Environmental</i> , 2022 , 303, 120903	21.8	18
95	Revisiting the Graphitized Nanodiamond-Mediated Activation of Peroxymonosulfate: Singlet Oxygenation versus Electron Transfer. <i>Environmental Science & Technology</i> , 2021 , 55, 16078-16087	10.3	18
94	Selective adsorption of rare earth ions from aqueous solution on metal-organic framework HKUST-1. <i>Chemical Engineering Journal Advances</i> , 2020 , 1, 100009	3.6	18
93	Correlation of Active Sites to Generated Reactive Species and Degradation Routes of Organics in Peroxymonosulfate Activation by Co-Loaded Carbon. <i>Environmental Science & Technology</i> , 2021 , 55, 16163-16174	10.3	17
92	The mechanistic difference of 1T-2H MoS ₂ homojunctions in persulfates activation: Structure-dependent oxidation pathways. <i>Applied Catalysis B: Environmental</i> , 2021 , 297, 120460	21.8	17
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