Activation of persulfate (PS) and peroxymonosulfate (PMS) and application for the degradation of emerging contar

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#	Paper	IF	Citations
1981	Formation and Oxidation Reactivity of MnO2+(HCO3)n in the MnII(HCO3)H2O2 System.		
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382	Trace-Dissolved S(-II) Triggers the Fe(III)-Activated H2O2 Process for Organic Pollutant Degradation by Promoting the Fe(III)/Fe(II) Cycle: Kinetics, Toxicity, and Mechanisms.	0
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345	Single Atom Cobalt Catalyst Derived from Co-Pyrolysis of Vitamin B12 and Graphitic Carbon Nitride for Pms Activation to Degrade Emerging Pollutants.	0

344	Effects of Combined Remediation of Pre-Ozonation and Bioaugmentation on Degradation of Benzo[A]Pyrene and Microbial Community Structure in Soils.	0
343	Mechanistic Insight into Manganese Oxidation Induced by Sulfite Under Aerobic Condition: Implication of Triclosan Degradation.	0
342	Metal-free activation of peroxymonosulfate by boron and nitrogen co-doped graphene nanotubes for catalytic oxidation of 4-hydroxybenzoic acid. **2022**, 1, 139-148	1
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262	Insight into FeOOH-mediated advanced oxidation processes for the treatment of organic polluted wastewater. **2023**, 453, 139812	0
261	Removal of Cl(-I) from acidic industrial wastewater through oxidation: A review on methods and mechanisms.	0
260	Performance of the solar/peroxymonosulfate process in (waste)water treatment: Abatement of micropollutants, roles of reactive oxygen species, and formation of disinfection by-products.	0
259	Enhancement of peroxymonosulfate activation for 2,4-dichlorophenoxyacetic acid removal by MoSe2 induced Fe redox cycles. **2023**, 311, 137170	0
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255	Peroxymonosulfate activation by suspended biogenic manganese oxides for polishing micropollutants in wastewater effluent. **2023**, 306, 122501	1

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235	Removal of Pharmaceuticals and Personal Care Products (PPCPs) by Free Radicals in Advanced Oxidation Processes. **2022**, 15, 8152	2
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222	Synergistic activation of persulfate by heat and cobalt-doped-bimetallic-MOFs for effective methylene blue degradation: Synthesis, kinetics, DFT calculation, and mechanisms. **2023**, 11, 109065	1
221	Recent advances in persulfate activation by magnetic ferrite-carbon composites for organic contaminants degradation: Role of carbon materials and environmental application. **2023**, 11, 109087	0
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212	Roles of graphitic N and Fe-Nx sites on persulfate non-radical activation for 2,4-dichlorophenol degradation by porous magnetic Fe□□ catalyst. **2023**, 241, 107619	0
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204	Dual redox cycles of Mn(II)/Mn(III) and Mn(III)/Mn(IV) on porous Mn/N co-doped biochar surfaces for promoting peroxymonosulfate activation and ciprofloxacin degradation. **2023**, 634, 255-267	1
203	Transformation of hydroxylamine to nitrosated and nitrated products during advanced oxidation process. **2023**, 445, 130537	0
202	Degradation of organic compounds through both radical and nonradical activation of peroxymonosulfate using CoWO4 catalysts. **2023**, 324, 122266	0
201	Enhanced visible light assisted peroxymonosulfate process by biochar in-situ enriched with □Fe2O3 for p-chlorophenol degradation: performance, mechanism and DFT calculation. **2023**, 445, 130593	0

200	Importance of carbon structure for nitrogen and sulfur co-doping to promote superior ciprofloxacin removal via peroxymonosulfate activation. **2023**, 634, 586-600	1
199	Singlet oxygen dominated core-shell Co nanoparticle to synergistically degrade methylene blue through efficient activation of peroxymonosulfate. **2023**, 308, 122849	0
198	Significant roles of surface functional groups and Fe/Co redox reactions on peroxymonosulfate activation by hydrochar-supported cobalt ferrite for simultaneous degradation of monochlorobenzene and p-chloroaniline. **2023**, 445, 130588	0
197	Identifying the evolution of primary oxidation mechanisms and pollutant degradation routes in the electro-cocatalytic Fenton-like systems. **2023**, 445, 130577	0
196	Oxidation absorption of nitric oxide from flue gas using biochar-activated peroxydisulfate technology. **2023**, 337, 127189	0
195	Preassembly strategy to anchor single atoms on carbon nitride layers achieving versatile Fenton-like catalysis. **2023**, 308, 122955	0
194	Insights into the practicability of electrochemical enhanced heterogeneous activation of peroxymonosulfate for the treatment of liquid waste during penicillin g production. **2022**, 140590	0
193	Kinetic and mechanistic investigations of the oxidation of organics by near-infrared light driven thermocatalytic activation of peroxydisulfate with Fe3O4. **2022**, 140629	0
192	Oxidative removal of oxytetracycline by UV-C/hydrogen peroxide and UV-C/peroxymonosulfate: Process optimization, kinetics, influence of co-existing ions, and quenching experiments. **2022**, 50, 103327	0
191	Synergetic Removal of Pb(II)- and Sulfonamide-Mixed Pollutants using Ni/Co Layered Double Hydroxide Nanocages Coupled with Peroxymonosulfate.	0
190	Recent Developments in Emerging Contaminants Determination and Treatment Technologies. **2022**, 9, 434	2
189	Trace Sulfur Accelerated Peroxydisulfate Activation Based on a ZIF-67-Derived Nanostructure for Carbamazepine Degradation. **2022**, 5, 18307-18319	0
188	Electro-activation of peroxymonosulfate by □PbO2 partial filling/covering TiO2 nanotube arrays anode for alkaloid berberine degradation: Performance, mechanism and practicability. **2022**, 141009	0
187	Oxidative degradation of Basic Red 29 by persulfate activated by sulfur composite zinc.	0
186	Efficient activation of peroxymonosulfate via Cu2+/Cu+ cycle enhanced by hydroxylamine for the degradation of Rhodamine B.	0
185	Enhanced persulfate activation by nitrogen-doped mesoporous carbon for efficiently degrading organic matters.	0
184	Mechanism of nitrogen-doped biochar□activated peroxymonosulfate for degradation of 2,4-dichlorophenol.	0
183	Co 3 O 4 /Carbon felt three-dimensional electrode promoted electrocatalytic oxidation - peroxymonosulfate system for p-nitrophenol degradation: effect of radical and non-radical mechanisms.	0

182	Low Concentration of Peroxymonosulfate Triggers Dissolved Oxygen Conversion over Single Atomic Fe□N 3 O 1 Sites for Water Decontamination. 2205583	0
181	Hierarchical porous graphite-like carbon nanosheet cooperated with Fe/Fe3C@Fe-N-C nanocomposites toward catalytic oxidation process. **2022**, 109204	0
180	Activity and Mechanism of Vanadium Sulfide for Organic Contaminants Oxidation with Peroxymonosulfate. **2022**,	0
179	Iron-rich sludge biochar triggers sodium percarbonate activation for robust sulfamethoxazole removal: Collaborative roles of reactive oxygen species and electron transfer. **2022**, 141150	0
178	Coupling ultrafine plasmonic Co3O4 with thin-layer carbon over SiO2 nanosphere for dual-functional PMS activation and solar interfacial water evaporation. **2023**, 168816	0
177	Treatment of tributyl phosphate by fenton oxidation: Optimization of parameter, degradation kinetics and pathway. **2023**, 137889	0
176	Response Surface Methodology for Optimization of Bisphenol A Degradation Using Fe3O4-Activated Persulfate. **2023**, 13, 128	0
175	Core□hell ZIF-67(Co) wrapped CuO as high efficient peroxymonosulfate catalyst for the degradation of methylene blue.	0
174	Diatomic Fe□e catalyst enhances the ability to degrade organic contaminants by nonradical peroxymonosulfate activation system.	0
173	Engineered ball-milled colloidal activated carbon material for advanced oxidation process of ibuprofen: Influencing factors and insights into the mechanism. **2023**, 121023	0
172	Removal mechanism of Microcystis aeruginosa in Fe2+/sodium percarbonate and Fe2+/sodium persulfate advanced oxidation-flocculation system.	0
171	Catalytic reactions in a Co12 cuboctahedral cage arising from guest encapsulation and cage-based redox activation.	1
170	Electrochemically Assisted Persulfate Oxidation of Organic Pollutants in Aqueous Solution: Influences, Mechanisms and Feasibility. **2023**, 13, 135	0
169	Membrane-based nanoconfined heterogeneous catalysis for water purification: A critical review?. **2023**, 230, 119577	0
168	The influence of B heteroatom concentrations on the physiochemical properties of N, B-co-doped biochar for peroxymonosulfate activation in ciprofloxacin removal. **2023**, 51, 103468	0
167	Enhanced persulfate activation by sulfur-modified Fe3O4 composites for atrazine degradation: Performance and mechanism. **2023**, 170, 1052-1065	0
166	Oxygen vacancies-rich □@□MnO2 mediated activation of peroxymonosulfate for the degradation of CIP: The role of electron transfer process on the surface. **2023**, 458, 141415	1
165	Fe3O4-supported N-doped carbon channels in wood carbon form etching and carbonization: Boosting performance for persulfate activating. **2023**, 457, 141317	0

164	Rational design of cobalt sulfide anchored on nitrogen-doped carbon derived from cyanobacteria waste enables efficient activation of peroxymonosulfate for organic pollutants oxidation. **2023**, 314, 137733	0
163	A novel photocatalytic system coupling metal-free Carbon/g-C3N4 catalyst with persulfate for highly efficient degradation of organic pollutants. **2023**, 314, 137728	0
162	Enhanced activation of peroxymonosulfate by a floating Cu0-MoS2/C3N4 photocatalyst under visible-light assistance for tetracyclines degradation and Escherichia coli inactivation. **2023**, 457, 141220	0
161	Individual and combined effect of ions species and organic matter on the removal of microcontaminants by Fe3+-EDDS/solar-light activated persulfate. **2023**, 230, 119566	0
160	Dual sites design of CoFe/Mg MMO catalyst for effectively suppressing dimethylamine re-emission: Degradation products and DFT calculation. **2023**, 457, 141223	0
159	Selective oxidation of ammonia to dinitrogen gas by facile Co2+/PMS/chloridion process through reactive chlorine radicals. **2023**, 313, 137648	0
158	Iron phthalocyanine doped carbon-based as a bifunctional material for peroxymonosulfate activation toward Reactive Red 24 degradation: Consolidated adsorption and multiple oxidation. **2023**, 51, 103476	0
157	Combination of zero-valent aluminum-acid system and electrochemically activated persulfate oxidation for biologically pre-treated leachate nanofiltration concentrate treatment. **2023**, 320, 121074	0
156	Two birds with one stone: Cobalt-doping induces to enhanced piezoelectric property and persulfate activation ability of ZnO nanorods for efficient water purification. **2023**, 107, 108173	1
155	Degradation of Bisphonel AF (BPAF) by zero-valent iron activated persulfate: Kinetics, mechanisms, theoretical calculations, and effect of co-existing chloride. **2023**, 316, 137774	0
154	Nitrogen-doped biochar (N-doped BC) and iron/nitrogen co-doped biochar (Fe/N co-doped BC) for removal of refractory organic pollutants. **2023**, 446, 130727	0
153	Exploring degradation properties and mechanisms of emerging contaminants via enhanced directional electron transfer by polarized electric fields regulation in Fe-N4-Cx. **2023**, 446, 130698	0
152	Highly efficient sensor for triphenyl phosphate based on UV-induced chemiluminescence. **2023**, 186, 108327	0
151	Effective and continuous degradation of pollutants via carbon felt loaded with Co3O4 as three-dimensional electrode: Collaboration between ROS. **2023**, 308, 122962	0
150	Understanding the electro-cocatalytic peroxymonosulfate-based systems with BDD versus DSA anodes: Radical versus nonradical dominated degradation mechanisms. **2023**, 309, 123120	0
149	Applications of Transition Metal Oxides and Chalcogenides and their Composites in Water Treatment: a review. **2023**, 11, 100341	0
148	Boosted chloramphenicol mineralization and detoxification of UV/S(IV) processes with straightforward aeration: The critical contribution of post-reoxygenation. **2023**, 310, 123158	0
147	Stabilization of nFeS with carboxymethyl cellulose for enhancing persulfate activation for p-Nitrophenol degradation. **2023**, 11, 109272	0

146	Enhanced norfloxacin degradation by three-dimensional (3D) electrochemical activation of peroxymonosulfate using Mn/Cu co-doped activated carbon particle electrode. **2023**, 310, 123067	0
145	New insights into peroxydisulfate activation by nanostructured and bulky carbons. **2023**, 325, 122371	0
144	Rapid removal of high-concentration Rhodamine B by peroxymonosulfate activated with Co3O4-Fe3O4 composite loaded on rice straw biochar.	0
143	Performance and Kinetics of BPA Degradation Initiated by Powdered Iron (or Ferrous Sulfate) and Persulfate in Aqueous Solutions. **2023**, 13, 36	0
142	Activation of peroxymonosulfate by Co-Mg-Fe layered doubled hydroxide for efficient degradation of Rhodamine B.	0
141	Removal mechanism of Microcystis aeruginosa in Fe2+/sodium percarbonate and Fe2+/sodium persulfate advanced oxidation-flocculation system.	0
140	Confined Tri-Functional FeO x @MnO 2 @SiO 2 Flask Micromotors for Long-Lasting Motion and Catalytic Reactions. 2207666	0
139	Treatment of Winery Wastewater by Combined Almond Skin Coagulant and Sulfate Radicals: Assessment of HSO5 Activators. **2023**, 20, 2486	0
138	Review on the degradation of chlorinated hydrocarbons by persulfate activated with zero-valent iron-based materials.	0
137	Evolution of Singlet Oxygen in Peroxymonosulfate Activation: A Review.	0
136	Degradation of methylene blue by an E-Fenton process coupled with peroxymonosulfate via free radical and non-radical oxidation pathways.	0
135	Tungsten disulfide (WS2) is a highly active co-catalyst in Fe(III)/H2O2 Fenton-like reactions for efficient acetaminophen degradation. **2023**, 871, 162151	0
134	Immobilization CoOOH nanosheets on biochar for peroxymonosulfate activation: Built-in electric field mediated radical and non-radical pathways. **2023**, 638, 412-426	0
133	Effects of combined remediation of pre-ozonation and bioaugmentation on degradation of benzo[a]pyrene and microbial community structure in soils.	0
132	Singlet oxygen-dominated non-radical oxidation in biochar/peroxymonosulfate system for efficient degradation of tetracycline hydrochloride: Surface site and catalytic mechanism. **2023**, 145, 104815	0
131	PMS activation by natural pyrite for APAP degradation: Underlying mechanism and long-term removal of APAP. **2023**, 177, 106661	0
130	Activation of peroxydisulfate by MIL-88A(Fe) under visible light toward tetracycline degradation: Effect of synthesis temperature on catalytic performance. **2023**, 124051	0
129	Cobalt doping amount determines dominant reactive species in peroxymonosulfate activation via porous carbon catalysts co-doped by cobalt and nitrogen. **2023**,	0

128	A microbial fuel cell with CuCo2S4 as cathode catalyst for peroxymonsulfate activation: Effect of electrons transfer on RhB removal and catalyst regeneration. **2023**, 109856	0
127	Effects of adsorption characteristics of carbocatalysts on persulfate-based advanced oxidation processes: organic removal mechanisms and optimization strategies. **2023**, 142801	0
126	Magnetic Fe/N-codoped carbon derived from modified Fe-base MOFs: Synergism of multiple active sites for peroxymonosulfate activation. **2023**, 109905	0
125	Enhanced activation of peroxymonosulfate for ofloxacin rapid degradation and inhibition of metal leaching on LaNi0.6Co0.4O3 stably anchored at ZnO. **2023**, 663, 131104	0
124	Enhanced peroxymonosulfate activation by Co-bHAP catalyst for efficient degradation of sulfamethoxazole. **2023**, 11, 109499	0
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122	Production of furan chemicals from contaminated biomass using hydrothermal-assisted activated persulfate strategy: Exploring the critical role of heavy metals on products. **2023**, 464, 142594	0
121	A hybrid nanocomposite based on CuFe layered double hydroxide coated graphene oxide for photocatalytic degradation of trimethoprim. **2023**, 322, 138243	0
120	In-situ preparation of yeast-supported Fe0@Fe2O3 as peroxymonosulfate activator for enhanced degradation of tetracycline hydrochloride. **2023**, 324, 138340	0
119	MoS2 nanoflowers decorated with single Fe atoms catalytically boost the activation properties of peroxymonosulfate. **2023**, 665, 131173	0
118	Peroxymonosulfate activation by graphene oxide-supported 3D-MoS2/FeCo2O4 sponge for highly efficient organic pollutants degradation. **2023**, 325, 121391	0
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115	Degradation of sulfamerazine using ultrasonic horn and pilot scale US reactor in combination with different oxidation approaches. **2023**, 312, 123351	0
114	Generation and transfer of long lifetime reactive oxygen species (ROSs) from electrochemical regulation. **2023**, 464, 142443	0
113	Heat-activated peroxydisulfate and peroxymonosulfate-mediated degradation of benzotriazole: Effects of chloride on kinetics, pathways and transformation product toxicity. **2023**, 14, 100472	0
112	Magnetic MnFe2O4/MoS2 nanocomposites synthesis for rapid degradation of sulfamethoxazole by activated peroxymonosulfate. **2023**, 146, 104777	0
111	Degradation of tetracycline by peroxymonosulfate activated with Mn0.85Fe2.15O4-CNTs: Key role of singlet oxygen. **2023**, 227, 115750	0

110	Insights into multi-pathway peroxymonosulfate activation by copper-doped Ca/Mn perovskite oxides for diethyl phthalate degradation. **2023**, 11, 109845	0
109	Natural mineral-derived Fe/Mn-BC as efficient peroxydisulfate activator for 2,4-dichlorophenol removal from wastewater: Performance and sustainable catalytic mechanism. **2023**, 335, 117540	0
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107	Combination of UVC light with antimicrobial agents for enhanced disinfection of surfaces and liquids. **2023**, 11, 109639	0
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105	Insight into iron oxychloride composite bone char for peroxymonosulfate activation: Mechanism of singlet oxygen evolution for selective degradation of organic pollutants. **2023**, 326, 138471	0
104	Water disinfection by persulfate activation using a nitrogen-doped reduced graphene oxide PVDF membrane. **2023**, 11, 109839	0
103	O-doped and nitrogen vacancies 3D C3N4 activation of peroxydisulfate for pollutants degradation and transfer hydrogenation of nitrophenols with water. **2023**, 314, 123540	0
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100	Anchored Co Oxo generated by cobalt single atoms outperformed aqueous species from the counterparts in peroxymonosulfate treatment. **2023**, 328, 122483	0
99	Pilot scale degradation of Sulfamerazine using different venturi based hydrodynamic cavitation and ultrasound reactors in combination with oxidation processes. **2023**, 11, 109857	0
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93	Two-dimensional MoS2 lattice constrained Cu(I) enables high activity and superior stability in visible-light-assisted peroxymonosulfate activation. **2023**, 315, 123671	0

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91	Nanoscaled MnSnO2@CsPbBr3 quantum dots heterostructure photocatalyst as efficient organic pollutants degradation by peroxymonosulfate; DFT calculation. **2023**, 153, 41-55	0
90	Silica enhanced activation and stability of Fe/Mn decorated sludge biochar composite for tetracycline degradation. **2023**, 328, 138614	0
89	Xanthate degradation at neutral and basics pH by Cu-Fenton-like process. **2023**, 441, 114678	0
88	Cobalt oxide functionalized ceramic membrane for 4-hydroxybenzoic acid degradation via peroxymonosulfate activation. **2023**, 448, 130874	0
87	Carbon-doped Co3O4-MgO catalyzed peroxymonosulfate activation via an enhanced Co(III)/Co(II) cycle for rapid chloramphenicol degradation. **2023**, 461, 142115	0
86	Fe3+-cysteine enhanced persulfate fenton-like process for quinclorac degradation: A wide pH tolerance and reaction mechanism. **2023**, 224, 115447	0
85	Graphene foam mediated FeS2/Fe2O3 composites for chloramphenicol photodegradation using persulfate activation under visible light irradiation. **2023**, 53, 103633	0
84	Insight into Chinese medicine residue biochar combined with ultrasound for persulfate activation in atrazine degradation: Acanthopanax senticosus precursors, synergistic effects and toxicity assessment. **2023**, 880, 163054	0
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76	Simultaneous oxidation absorption of NO and Hg0 using biomass carbon-activated Oxone system under synergism of high temperature. **2023**, 310, 123212	0
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69	A Comparison Study between Wood Flour and Its Derived Biochar for the Enhancement of the Peroxydisulfate Activation Capability of Fe3O4. **2023**, 13, 323	0
68	Role of superoxide radical and singlet oxygen in peroxymonosulfate activation by iron-doped bone char for efficient acetaminophen degradation. **2023**, 459, 141642	0
67	Activation of peroxymonosulfate by g-C3N4/α-MnO2 microspheres for nonradical pathway degradation of organic pollutants in water: Catalytic mechanism and degradation path. **2023**, 459, 141643	0
66	Simultaneous morphology control and defect regulation in g-C3N4 for peroxymonosulfate activation and bisphenol S degradation. **2023**, 663, 131053	0
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63	Engineered tourmaline/g-C3N4 composites for photocatalytic Fenton-like oxidation: Synergy of spontaneous interface polarization and surface iron circulations induced by minerals. **2023**, 460, 141718	0
62	Degradation of Organic Methyl Orange (MO) Dye Using a Photocatalyzed Non-Ferrous Fenton Reaction. **2023**, 13, 639	0
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58	Utility and mechanism of magnetic nano-MnFe2O4/MWNT activation for oxidative degradation of tetracycline by persulfate. **2023**, 30, 48999-49013	0
57	Thermal annealing-enhanced interfacial charge transfer in g-C3N4/rectorite composite for boosted peroxymonosulfate activation. **2023**, 11, 109491	0

56	Efficient Removal of Rhodamine B in Wastewater via Activation of Persulfate by MnO2 with Different Morphologies. **2023**, 15, 735	0
55	Efficient degradation of ciprofloxacin by activated peroxymonosulfate using OV-rich NiCo4-LDH: Insights into radical production pathway and catalytic mechanism. **2023**, 461, 141885	0
54	A Z-scheme photocatalysis for phenol eradication from water using peroxymonosulfate activation Ag/AgBr/SCN nanocomposite. **2023**, 144, 104722	0
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46	Degradation of Antibiotic Vancomycin by UV Photolysis and Pulsed Corona Discharge Combined with Extrinsic Oxidants. **2023**, 13, 466	0
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37	Efficient sonocatalytic degradation of orange II dye and real textile wastewater using peroxymonosulfate activated with a novel heterogeneous TiO2ĐeZn bimetallic nanocatalyst.	0
36	Can Heat-Activated Peroxymonosulfate Be Used as a Pretreatment to Mitigate Fouling for Membrane Distillation: Performance of Individual Organics?. **2023**, 15, 1148	0
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33	Iron-based biochar as efficient persulfate activation catalyst for emerging pollutants removal: A review. **2023**, 108357	0
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23	MOFs-derived CuOĐe3O4@C with abundant oxygen vacancies and strong CuĐe interaction for deep mineralization of bisphenol A. **2023**, 115847	0
22	Activation of peroxodisulfate by Ag3PO4/N, S-doped graphene for efficient organic degradation and bacterial disinfection. **2023**, 123803	0
21	Nanoclay-Modulated Interfacial Chemical Bond and Internal Electric Field at the Co 3 O 4 /TiO 2 p-n Junction for Efficient Charge Separation.	0

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