Jaesang Lee

List of Publications by Year
in descending order

47 papers	6,006 citations	196777 29 h-index	242451 47 g-index
48 all docs	48 docs citations	48 times ranked	4350 citing authors

#	ARTICLE	IF	CITATIONS
1	Peroxide activation by microbially synthesized sulfidated iron: Comparison against abiotic iron-based materials in terms of treatment efficiency and oxidative degradation pathway. Applied Catalysis B: Environmental, 2022, 303, 120884.	10.8	8
2	Dual role of N-doped graphene film as a cathode material for anodic organic oxidation and persulfate production and as a planar carbocatalyst for non-electrochemical persulfate activation. Environmental Science: Nano, 2022, 9, 1662-1674.	2.2	4
3	Catalytic persulfate activation for oxidation of organic pollutants: A critical review on mechanisms and controversies. Journal of Environmental Chemical Engineering, 2022, 10, 107654.	3.3	32
4	Revisiting the Oxidizing Capacity of the Periodateâ€“H₂O₂ Mixture: Identification of the Primary Oxidants and Their Formation Mechanisms. Environmental Science & Technology, 2022, 56, 5763-5774.	4.6	26
5	Ti3+ self-doped TiO2 nanotube arrays revisited as Janus photoelectrodes for persulfate activation and water treatment. Applied Catalysis B: Environmental, 2022, 315, 121543.	10.8	17
6	Low-temperature hydrogenation of nanodiamond as a strategy to fabricate sp-hybridized nanocarbon as a high-performance persulfate activator. Applied Catalysis B: Environmental, 2022, 316, 121589.	10.8	4
7	Visible-Light Activation of a Dissolved Organic Matterâ€“TiO₂ Complex Mediated <i>via</i> Ligand-to-Metal Charge Transfer. Environmental Science & Technology, 2022, 56, 10829-10837.	4.6	17
8	Persulfate activation by ZIF-67-derived cobalt/nitrogen-doped carbon composites: Kinetics and mechanisms dependent on persulfate precursor. Chemical Engineering Journal, 2021, 408, 127305.	6.6	72
9	Hand-ground fullerene-nanodiamond composite for photosensitized water treatment and photodynamic cancer therapy. Journal of Colloid and Interface Science, 2021, 587, 101-109.	5.0	12
10	Three-dimensional construction of electrode materials using TiC nanoarray substrates for highly efficient electrogeneration of sulfate radicals and molecular hydrogen in a single electrolysis cell. Journal of Materials Chemistry A, 2021, 9, 11705-11717.	5.2	5
11	Chloride-Mediated Enhancement in Heat-Induced Activation of Peroxymonosulfate: New Reaction Pathways for Oxidizing Radical Production. Environmental Science & Technology, 2021, 55, 5382-5392.	4.6	86
12	Persulfate enhanced photoelectrochemical oxidation of organic pollutants using self-doped TiO2nanotube arrays: Effect of operating parameters and water matrix. Water Research, 2021, 191, 116803.	5.3	34
13	Revisiting the Role of Peroxymonosulfate in TiO₂-Mediated Photocatalytic Oxidation: Dependence of Kinetic Enhancement on Target Substrate and Surface Platinization. ACS ES&T Engineering, 2021, 1, 1530-1541.	3.7	16
14	Persulfate activation by nanodiamond-derived carbon onions: Effect of phase transformation of the inner diamond core on reaction kinetics and mechanisms. Applied Catalysis B: Environmental, 2021, 293, 120205.	10.8	35
15	Role of nitrite ligands in enhancing sulfate radical production via catalytic peroxymonosulfate activation by cobalt complexes. Separation and Purification Technology, 2021, 279, 119698.	3.9	16
16	Activation of Hydrogen Peroxide by a Titanium Oxide-Supported Iron Catalyst: Evidence for Surface Fe(IV) and Its Selectivity. Environmental Science & Technology, 2020, 54, 15424-15432.	4.6	44
17	Peroxymonosulfate activation by carbon-encapsulated metal nanoparticles: Switching the primary reaction route and increasing chemical stability. Applied Catalysis B: Environmental, 2020, 279, 119360.	10.8	60
18	Persulfate-Based Advanced Oxidation: Critical Assessment of Opportunities and Roadblocks. Environmental Science & Technology, 2020, 54, 3064-3081.	4.6	1,779

#	Article	IF	Citations
19	Electrochemical Oxidationâ€“Membrane Distillation Hybrid Process: Utilizing Electric Resistance Heating for Distillation and Membrane Defouling through Thermal Activation of Anodically Formed Persulfate. Environmental Science & Technology, 2020, 54, 1867-1877.	4.6	48
20	Investigation of titanium mesh as a cathode for the electro-Fenton process: consideration of its practical application in wastewater treatment. Environmental Science: Water Research and Technology, 2020, 6, 1627-1637.	1.2	8
21	Thorn-like TiO2 nanoarrays with broad spectrum antimicrobial activity through physical puncture and photocatalytic action. Scientific Reports, 2019, 9, 13697.	1.6	19
22	Two-dimensional RuO₂ nanosheets as robust catalysts for peroxymonosulfate activation. Environmental Science: Nano, 2019, 6, 2084-2093.	2.2	33
23	Superior anodic oxidation in tailored Sb-doped SnO2/RuO2 composite nanofibers for electrochemical water treatment. Journal of Catalysis, 2019, 374, 118-126.	3.1	31
24	Electrochemical oxidation of organics in sulfate solutions on boron-doped diamond electrode: Multiple pathways for sulfate radical generation. Applied Catalysis B: Environmental, 2019, 254, 156-165.	10.8	91
25	Antibacterial application of covalently immobilized photosensitizers on a surface. Environmental Research, 2019, 172, 34-42.	3.7	16
26	Surface-loaded metal nanoparticles for peroxymonosulfate activation: Efficiency and mechanism reconnaissance. Applied Catalysis B: Environmental, 2019, 241, 561-569.	10.8	260
27	Oxidation of organic pollutants by peroxymonosulfate activated with low-temperature-modified nanodiamonds: Understanding the reaction kinetics and mechanism. Applied Catalysis B: Environmental, 2018, 237, 432-441.	10.8	161
28	Visible light-photosensitized oxidation of organic pollutants using amorphous peroxo-titania. Applied Catalysis B: Environmental, 2018, 225, 487-495.	10.8	27
29	Identifying the Nonradical Mechanism in the Peroxymonosulfate Activation Process: Singlet Oxygenation Versus Mediated Electron Transfer. Environmental Science & Technology, 2018, 52, 7032-7042.	4.6	777
30	Exploring the Role of Persulfate in the Activation Process: Radical Precursor Versus Electron Acceptor. Environmental Science & Technology, 2017, 51, 10090-10099.	4.6	282
31	Sequential Combination of Electro-Fenton and Electrochemical Chlorination Processes for the Treatment of Anaerobically-Digested Food Wastewater. Environmental Science & Technology, 2017, 51, 10700-10710.	4.6	61
32	Visible Light Sensitized Production of Hydroxyl Radicals Using Fullerol as an Electron-Transfer Mediator. Environmental Science & Technology, 2016, 50, 10545-10553.	4.6	37
33	Activation of Peroxymonosulfate by Surface-Loaded Noble Metal Nanoparticles for Oxidative Degradation of Organic Compounds. Environmental Science & Technology, 2016, 50, 10187-10197.	4.6	262
34	Potential risks of TiO2 and ZnO nanoparticles released from sunscreens into outdoor swimming pools. Journal of Hazardous Materials, 2016, 317, 312-318.	6.5	52
35	Activation of persulfates by carbon nanotubes: Oxidation of organic compounds by nonradical mechanism. Chemical Engineering Journal, 2015, 266, 28-33.	6.6	556
36	Substrate-immobilized electrospun TiO2 nanofibers for photocatalytic degradation of pharmaceuticals: The effects of pH and dissolved organic matter characteristics. Water Research, 2015, 86, 25-34.	5.3	66

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37	TiO2 nanoparticle sorption to sand in the presence of natural organic matter. Environmental Earth Sciences, 2015, 73, 5585-5591.	1.3	11
38	Targeted removal of trichlorophenol in water by oleic acid-coated nanoscale palladium/zero-valent iron alginate beads11Abbreviations: CP â€“ chlorophenol; DCP â€“ dichlorophenol; MCP â€“ monochlorophenol; n-ZVI â€“ nanoscale zero-valent iron; Pd/nZVI â€“ nanoscale palladium zero-valent iron; Pd/nZVI-A â€“ nanoscale palladium zero-valent iron alginate beads; Pd/nZVI-A-O â€“ oleic acid-coated nanoscale palladium zero-valent iron alginate beads; SRHA â€“ Suwannee River humic acid; TCP â€“ trichlorophenol.. Journal of Hazardous Materials, 2015, 293, 30-36.	6.5	29
39	Photocatalytic applications of paper-like poly(vinylidene fluoride)â€“titanium dioxide hybrids fabricated using a combination of electrospinning and electrospraying. Journal of Hazardous Materials, 2015, 285, 267-276.	6.5	59
40	Effects of inorganic oxidants on kinetics and mechanisms of WO 3 -mediated photocatalytic degradation. Applied Catalysis B: Environmental, 2015, 162, 515-523.	10.8	79
41	Heterogeneous photocatalytic treatment of pharmaceutical micropollutants: Effects of wastewater effluent matrix and catalyst modifications. Applied Catalysis B: Environmental, 2014, 147, 8-16.	10.8	130
42	Oxidation of aquatic pollutants by ferrousâ€“oxalate complexes under dark aerobic conditions. Journal of Hazardous Materials, 2014, 274, 79-86.	6.5	31
43	Oxidizing Capacity of Periodate Activated with Iron-Based Bimetallic Nanoparticles. Environmental Science & Technology, 2014, 48, 8086-8093.	4.6	133
44	Kinetic enhancement in photocatalytic oxidation of organic compounds by WO3 in the presence of Fenton-like reagent. Applied Catalysis B: Environmental, 2013, 138-139, 311-317.	10.8	56
45	Selective Oxidative Degradation of Organic Pollutants by Singlet Oxygen-Mediated Photosensitization: Tin Porphyrin versus C₆₀ Aminofullerene Systems. Environmental Science & Technology, 2012, 46, 9606-9613.	4.6	190
46	Photosensitized Oxidation of Emerging Organic Pollutants by Tetrakis C₆₀ Aminofullerene-Derivatized Silica under Visible Light Irradiation. Environmental Science & Technology, 2011, 45, 10598-10604.	4.6	107
47	Photochemical and Antimicrobial Properties of Novel C₆₀ Derivatives in Aqueous Systems. Environmental Science & Technology, 2009, 43, 6604-6610.	4.6	127