

Wan-Qian Guo

List of Publications by Year in descending order

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90
papers

6,944
citations

57758

44
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58581

82
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all docs

90
docs citations

90
times ranked

4941
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Edge-nitrogenated biochar for efficient peroxydisulfate activation: An electron transfer mechanism. <i>Water Research</i> , 2019, 160, 405-414. | 11.3 | 566 |
| 2 | Singlet oxygen-dominated peroxydisulfate activation by sludge-derived biochar for sulfamethoxazole degradation through a nonradical oxidation pathway: Performance and mechanism. <i>Chemical Engineering Journal</i> , 2019, 357, 589-599. | 12.7 | 363 |
| 3 | Selective degradation of sulfonamide antibiotics by peroxymonosulfate alone: Direct oxidation and nonradical mechanisms. <i>Chemical Engineering Journal</i> , 2018, 334, 2539-2546. | 12.7 | 284 |
| 4 | Enhanced peroxymonosulfate activation for sulfamethazine degradation by ultrasound irradiation: Performances and mechanisms. <i>Chemical Engineering Journal</i> , 2018, 335, 145-153. | 12.7 | 269 |
| 5 | Sludge-derived biochar as efficient persulfate activators: Sulfurization-induced electronic structure modulation and disparate nonradical mechanisms. <i>Applied Catalysis B: Environmental</i> , 2020, 279, 119361. | 20.2 | 240 |
| 6 | Hydroxyl radical dominated degradation of aquatic sulfamethoxazole by FeO/bisulfite/O ₂ : Kinetics, mechanisms, and pathways. <i>Water Research</i> , 2018, 138, 323-332. | 11.3 | 236 |
| 7 | Biochar-induced Fe(III) reduction for persulfate activation in sulfamethoxazole degradation: Insight into the electron transfer, radical oxidation and degradation pathways. <i>Chemical Engineering Journal</i> , 2019, 362, 561-569. | 12.7 | 220 |
| 8 | Medium chain carboxylic acids production from waste biomass: Current advances and perspectives. <i>Biotechnology Advances</i> , 2019, 37, 599-615. | 11.7 | 187 |
| 9 | Dark fermentation of xylose and glucose mix using isolated <i>Thermoanaerobacterium thermosaccharolyticum</i> W16. <i>International Journal of Hydrogen Energy</i> , 2008, 33, 6124-6132. | 7.1 | 180 |
| 10 | Biological hydrogen production by dark fermentation: challenges and prospects towards scaled-up production. <i>Current Opinion in Biotechnology</i> , 2011, 22, 365-370. | 6.6 | 180 |
| 11 | Minimization of excess sludge production by in-situ activated sludge treatment processes – A comprehensive review. <i>Biotechnology Advances</i> , 2013, 31, 1386-1396. | 11.7 | 180 |
| 12 | Enhancement of volatile fatty acid production by co-fermentation of food waste and excess sludge without pH control: The mechanism and microbial community analyses. <i>Bioresource Technology</i> , 2016, 216, 653-660. | 9.6 | 175 |
| 13 | B-doped graphitic porous biochar with enhanced surface affinity and electron transfer for efficient peroxydisulfate activation. <i>Chemical Engineering Journal</i> , 2020, 396, 125119. | 12.7 | 148 |
| 14 | Optimization of culture conditions for hydrogen production by <i>Ethanoligenens harbinense</i> B49 using response surface methodology. <i>Bioresource Technology</i> , 2009, 100, 1192-1196. | 9.6 | 147 |
| 15 | Upgrading liquor-making wastewater into medium chain fatty acid: Insights into co-electron donors, key microflora, and energy harvest. <i>Water Research</i> , 2018, 145, 650-659. | 11.3 | 147 |
| 16 | Sulfamethoxazole degradation by ultrasound/ozone oxidation process in water: Kinetics, mechanisms, and pathways. <i>Ultrasonics Sonochemistry</i> , 2015, 22, 182-187. | 8.2 | 145 |
| 17 | Adsorption of p-nitrophenols (PNP) on microalgal biochar: Analysis of high adsorption capacity and mechanism. <i>Bioresource Technology</i> , 2017, 244, 1456-1464. | 9.6 | 144 |
| 18 | Biohydrogen production from ethanol-type fermentation of molasses in an expanded granular sludge bed (EGSB) reactor. <i>International Journal of Hydrogen Energy</i> , 2008, 33, 4981-4988. | 7.1 | 143 |

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|----|--|------|-----------|
| 19 | Removal of cephalosporin antibiotics 7-ACA from wastewater during the cultivation of lipid-accumulating microalgae. <i>Bioresource Technology</i> , 2016, 221, 284-290. | 9.6 | 125 |
| 20 | In situ photoreduction of structural Fe(III) in a metal-organic framework for peroxydisulfate activation and efficient removal of antibiotics in real wastewater. <i>Journal of Hazardous Materials</i> , 2020, 388, 121996. | 12.4 | 121 |
| 21 | Novel Nonradical Oxidation of Sulfonamide Antibiotics with Co(II)-Doped g-C ₃ N ₄ -Activated Peracetic Acid: Role of High-Valent Cobalt-Oxo Species. <i>Environmental Science & Technology</i> , 2021, 55, 12640-12651. | 10.0 | 115 |
| 22 | Enhanced removal of sulfadiazine by sulfidated ZVI activated persulfate process: Performance, mechanisms and degradation pathways. <i>Chemical Engineering Journal</i> , 2020, 388, 124303. | 12.7 | 112 |
| 23 | Heteroatoms doped graphene for catalytic ozonation of sulfamethoxazole by metal-free catalysis: Performances and mechanisms. <i>Chemical Engineering Journal</i> , 2017, 317, 632-639. | 12.7 | 107 |
| 24 | Insights into the oxidation of organic contaminants by Co(II) activated peracetic acid: The overlooked role of high-valent cobalt-oxo species. <i>Water Research</i> , 2021, 201, 117313. | 11.3 | 106 |
| 25 | Activation of peroxymonosulfate by cobalt-impregnated biochar for atrazine degradation: The pivotal roles of persistent free radicals and ecotoxicity assessment. <i>Journal of Hazardous Materials</i> , 2020, 398, 122768. | 12.4 | 100 |
| 26 | Simultaneous waste activated sludge disintegration and biological hydrogen production using an ozone/ultrasound pretreatment. <i>Bioresource Technology</i> , 2012, 124, 347-354. | 9.6 | 94 |
| 27 | New insight into the substituents affecting the peroxydisulfate nonradical oxidation of sulfonamides in water. <i>Water Research</i> , 2020, 171, 115374. | 11.3 | 88 |
| 28 | Difunctional carbon quantum dots/g-C ₃ N ₄ with in-plane electron buffer for intense tetracycline degradation under visible light: Tight adsorption and smooth electron transfer. <i>Applied Catalysis B: Environmental</i> , 2021, 299, 120694. | 20.2 | 84 |
| 29 | Deciphering the transfers of antibiotic resistance genes under antibiotic exposure conditions: Driven by functional modules and bacterial community. <i>Water Research</i> , 2021, 205, 117672. | 11.3 | 76 |
| 30 | Insight into the effects of hydroxyl groups on the rates and pathways of tetracycline antibiotics degradation in the carbon black activated peroxydisulfate oxidation process. <i>Journal of Hazardous Materials</i> , 2021, 412, 125256. | 12.4 | 70 |
| 31 | Ultrasonic-assisted ozone oxidation process of triphenylmethane dye degradation: Evidence for the promotion effects of ultrasonic on malachite green decolorization and degradation mechanism. <i>Bioresource Technology</i> , 2013, 128, 827-830. | 9.6 | 66 |
| 32 | Electro-peroxone pretreatment for enhanced simulated hospital wastewater treatment and antibiotic resistance genes reduction. <i>Environment International</i> , 2018, 115, 70-78. | 10.0 | 64 |
| 33 | Non-covalent doping of carbon nitride with biochar: Boosted peroxymonosulfate activation performance and unexpected singlet oxygen evolution mechanism. <i>Chemical Engineering Journal</i> , 2021, 418, 129504. | 12.7 | 64 |
| 34 | Long-term medium chain carboxylic acids production from liquor-making wastewater: Parameters optimization and toxicity mitigation. <i>Chemical Engineering Journal</i> , 2020, 388, 124218. | 12.7 | 59 |
| 35 | Characterizing the fluorescent products of waste activated sludge in dissolved organic matter following ultrasound assisted ozone pretreatments. <i>Bioresource Technology</i> , 2013, 131, 560-563. | 9.6 | 56 |
| 36 | Optimization of operating parameters for sludge process reduction under alternating aerobic/oxygen-limited conditions by response surface methodology. <i>Bioresource Technology</i> , 2011, 102, 9843-9851. | 9.6 | 55 |

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|----|--|------|-----------|
| 37 | Weak magnetic field for enhanced oxidation of sulfamethoxazole by Fe ⁰ /H ₂ O ₂ and Fe ⁰ /persulfate: Performance, mechanisms, and degradation pathways. <i>Chemical Engineering Journal</i> , 2018, 351, 532-539. | 12.7 | 55 |
| 38 | Possible causes of excess sludge reduction adding metabolic uncoupler, 3,3,4,4-tetrachlorosalicylanilide (TCS), in sequence batch reactors. <i>Bioresource Technology</i> , 2014, 173, 96-103. | 9.6 | 51 |
| 39 | Enhanced amoxicillin treatment using the electro-peroxone process: key factors and degradation mechanism. <i>RSC Advances</i> , 2015, 5, 52695-52702. | 3.6 | 50 |
| 40 | Surfactant (CTAB) assisted flower-like Bi ₂ WO ₆ through hydrothermal method: Unintentional bromide ion doping and photocatalytic activity. <i>Catalysis Communications</i> , 2017, 88, 68-72. | 3.3 | 49 |
| 41 | Carbon quantum dots-based semiconductor preparation methods, applications and mechanisms in environmental contamination. <i>Chinese Chemical Letters</i> , 2020, 31, 2556-2566. | 9.0 | 49 |
| 42 | Enhanced utilization efficiency of peroxymonosulfate via water vortex-driven piezo-activation for removing organic contaminants from water. <i>Environmental Science and Ecotechnology</i> , 2022, 10, 100165. | 13.5 | 49 |
| 43 | Consolidated 3D CoMn-layered double hydroxide aerogel for photo-assisted peroxymonosulfate activation in metronidazole degradation. <i>Chemical Engineering Journal</i> , 2021, 423, 130172. | 12.7 | 48 |
| 44 | Opportunities and challenges in microbial medium chain fatty acids production from waste biomass. <i>Bioresource Technology</i> , 2021, 340, 125633. | 9.6 | 48 |
| 45 | Enhanced volatile fatty acid production from excess sludge by combined free nitrous acid and rhamnolipid treatment. <i>Bioresource Technology</i> , 2017, 224, 727-732. | 9.6 | 46 |
| 46 | Concentrating lactate-carbon flow on medium chain carboxylic acids production by hydrogen supply. <i>Bioresource Technology</i> , 2019, 291, 121573. | 9.6 | 46 |
| 47 | Thermophilic hydrogen production from sludge pretreated by thermophilic bacteria: Analysis of the advantages of microbial community and metabolism. <i>Bioresource Technology</i> , 2014, 172, 433-437. | 9.6 | 43 |
| 48 | Degradation of sulfamethoxazole by a heterogeneous Fenton-like system with microscale zero-valent iron: Kinetics, effect factors, and pathways. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2017, 81, 232-238. | 5.3 | 43 |
| 49 | Enhanced sulfamethoxazole ozonation by noble metal-free catalysis based on magnetic Fe ₃ O ₄ nanoparticles: catalytic performance and degradation mechanism. <i>RSC Advances</i> , 2016, 6, 19265-19270. | 3.6 | 40 |
| 50 | Degradation of sulfadiazine in water by a UV/O ₃ process: performance and degradation pathway. <i>RSC Advances</i> , 2016, 6, 57138-57143. | 3.6 | 39 |
| 51 | Multipath elimination of bisphenol A over bifunctional polymeric carbon nitride/biochar hybrids in the presence of persulfate and visible light. <i>Journal of Hazardous Materials</i> , 2021, 417, 126008. | 12.4 | 35 |
| 52 | Structure-dependent degradation of nitroimidazoles by cobalt-manganese layered double hydroxide catalyzed peroxymonosulfate process. <i>Chemosphere</i> , 2021, 266, 129006. | 8.2 | 34 |
| 53 | A rapid and low energy consumption method to decolorize the high concentration triphenylmethane dye wastewater: Operational parameters optimization for the ultrasonic-assisted ozone oxidation process. <i>Bioresource Technology</i> , 2012, 105, 40-47. | 9.6 | 33 |
| 54 | Economical evaluation of sludge reduction and characterization of effluent organic matter in an alternating aeration activated sludge system combining ozone/ultrasound pretreatment. <i>Bioresource Technology</i> , 2015, 177, 194-203. | 9.6 | 33 |

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|----|--|------|-----------|
| 55 | Enhancing sludge biodegradability and volatile fatty acid production by tetrakis hydroxymethyl phosphonium sulfate pretreatment. <i>Bioresource Technology</i> , 2017, 239, 518-522. | 9.6 | 32 |
| 56 | Treatability study of using low frequency ultrasonic pretreatment to augment continuous biohydrogen production. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 14180-14185. | 7.1 | 31 |
| 57 | Optimization of ultrasonic pretreatment and substrate/inoculum ratio to enhance hydrolysis and volatile fatty acid production from food waste. <i>RSC Advances</i> , 2014, 4, 53321-53326. | 3.6 | 31 |
| 58 | Insights into removal of sulfonamides in anaerobic activated sludge system: Mechanisms, degradation pathways and stress responses. <i>Journal of Hazardous Materials</i> , 2022, 423, 127248. | 12.4 | 30 |
| 59 | Bio-CQDs surface modification BiOCl for the BPA elimination and evaluation in visible light: The contribution of C-localized level. <i>Journal of Colloid and Interface Science</i> , 2021, 602, 1-13. | 9.4 | 28 |
| 60 | Peroxymonosulfate activation by cobalt(II) for degradation of organic contaminants via high-valent cobalt-oxo and radical species. <i>Journal of Hazardous Materials</i> , 2021, 416, 125679. | 12.4 | 27 |
| 61 | Optimization of key variables for the enhanced production of hydrogen by <i>Ethanoligenens harbinense</i> W1 using response surface methodology. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 5843-5848. | 7.1 | 25 |
| 62 | Accelerated startup of hydrogen production expanded granular sludge bed with L-Cysteine supplementation. <i>Energy</i> , 2013, 60, 94-98. | 8.8 | 24 |
| 63 | Factors affecting p-nitrophenol removal by microscale zero-valent iron coupling with weak magnetic field (WMF). <i>RSC Advances</i> , 2017, 7, 18231-18237. | 3.6 | 23 |
| 64 | Simultaneous bisphenol F degradation, heterotrophic nitrification and aerobic denitrification by a bacterial consortium. <i>Journal of Chemical Technology and Biotechnology</i> , 2017, 92, 854-860. | 3.2 | 22 |
| 65 | Photo-hydrogen production by <i>Rhodospseudomonas faecalis</i> RLD-53 immobilized on the surface of modified activated carbon fibers. <i>RSC Advances</i> , 2012, 2, 2225. | 3.6 | 21 |
| 66 | Effect of substrate structure on medium chain fatty acids production and reactor microbiome. <i>Environmental Research</i> , 2022, 204, 111947. | 7.5 | 21 |
| 67 | Application of low frequency ultrasound to stimulate the bio-activity of activated sludge for use as an inoculum in enhanced hydrogen production. <i>RSC Advances</i> , 2013, 3, 21848. | 3.6 | 20 |
| 68 | Alkylethoxyglucoside-enhanced volatile fatty acids production from waste activated sludge: Performance and mechanisms. <i>Journal of Cleaner Production</i> , 2021, 289, 125765. | 9.3 | 20 |
| 69 | Atomically dispersed cobalt on carbon nitride for peroxymonosulfate activation: Switchable catalysis enabled by light irradiation. <i>Chemical Engineering Journal</i> , 2022, 446, 137277. | 12.7 | 19 |
| 70 | Accelerated startup of biological hydrogen production process by addition of <i>Ethanoligenens harbinense</i> B49 in a biofilm-based column reactor. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 13407-13412. | 7.1 | 18 |
| 71 | Continuous photo-hydrogen production in anaerobic fluidized bed photo-reactor with activated carbon fiber as carrier. <i>RSC Advances</i> , 2012, 2, 5531. | 3.6 | 18 |
| 72 | Degradation pathways and kinetics of anthraquinone compounds along with nitrate removal by a newly isolated <i>Rhodococcus pyridinivorans</i> GF3 under aerobic conditions. <i>Bioresource Technology</i> , 2019, 285, 121336. | 9.6 | 18 |

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|----|---|------|-----------|
| 73 | Peroxydisulfate bridged photocatalysis of covalent triazine framework for carbamazepine degradation. <i>Chemical Engineering Journal</i> , 2022, 427, 131613. | 12.7 | 18 |
| 74 | Spin-states-assistance peroxymonosulfate absorption via Mn doped catalyst with/without light for BPA oxidation: The negative contribution of electrons transfer by light. <i>Chemical Engineering Journal</i> , 2022, 443, 136399. | 12.7 | 18 |
| 75 | Simultaneous nutrient removal and reduction in sludge from sewage waste using an alternating anaerobic–anoxic–microaerobic–aerobic system combining ozone/ultrasound technology. <i>RSC Advances</i> , 2014, 4, 52892-52897. | 3.6 | 17 |
| 76 | Enhancement of volatile fatty acid production using semi-continuous anaerobic food waste fermentation without pH control. <i>RSC Advances</i> , 2015, 5, 103876-103883. | 3.6 | 17 |
| 77 | Mathematical modeling of simultaneous carbon-nitrogen-sulfur removal from industrial wastewater. <i>Journal of Hazardous Materials</i> , 2017, 321, 371-381. | 12.4 | 17 |
| 78 | Biological hydrogen production from organic wastewater by dark fermentation in China: Overview and prospects. <i>Frontiers of Environmental Science and Engineering in China</i> , 2009, 3, 375-379. | 0.8 | 16 |
| 79 | Treatability study of 3,3',4',5-tetrachlorosalicylanilide (TCS) combined with 2,4,6-trichlorophenol (TCP) to reduce excess sludge production in a sequence batch reactor. <i>Bioresource Technology</i> , 2013, 143, 642-646. | 9.6 | 16 |
| 80 | Reduction of 4-chloronitrobenzene in a bioelectrochemical reactor with biocathode at ambient temperature for a long-term operation. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2015, 46, 119-124. | 5.3 | 16 |
| 81 | Compared effects of –solid-based–hydrogen peroxide pretreatment on disintegration and properties of waste activated sludge. <i>Chinese Chemical Letters</i> , 2022, 33, 1293-1297. | 9.0 | 16 |
| 82 | Inhibition of biofouling in membrane bioreactor by metabolic uncoupler based on controlling microorganisms accumulation and quorum sensing signals secretion. <i>Chemosphere</i> , 2020, 245, 125363. | 8.2 | 12 |
| 83 | Inhibition of biofilm formation by chemical uncoupler, 3,3',4',5-tetrachlorosalicylanilide (TCS): From the perspective of quorum sensing and biofilm related genes. <i>Biochemical Engineering Journal</i> , 2018, 137, 95-99. | 3.6 | 10 |
| 84 | Promotion effects of ultrasound on sludge biodegradation by thermophilic bacteria <i>Geobacillus stearothermophilus</i> TP-12. <i>Biochemical Engineering Journal</i> , 2016, 105, 281-287. | 3.6 | 9 |
| 85 | Effect of metabolic uncoupler, 3,3',4',5-tetrachlorosalicylanilide (TCS) on <i>Bacillus subtilis</i> : biofilm formation, flocculability and surface characteristics. <i>RSC Advances</i> , 2018, 8, 16178-16186. | 3.6 | 7 |
| 86 | Mutual interaction between the secreted flavins and immobilized quinone in anaerobic removal of high-polarity aromatic compounds containing nitrogen by <i>Shewanella</i> sp. RQs-106. <i>Journal of Hazardous Materials</i> , 2022, 431, 128595. | 12.4 | 5 |
| 87 | Simultaneous medium chain fatty acids production and process carbon emissions reduction in a continuous-flow reactor: Re-understanding of carbon flow distribution. <i>Environmental Research</i> , 2022, 212, 113294. | 7.5 | 5 |
| 88 | Dissecting the roles of conductive materials in attenuating antibiotic resistance genes: Evolution of physiological features and bacterial community. <i>Journal of Hazardous Materials</i> , 2022, 438, 129411. | 12.4 | 5 |
| 89 | Ultrasonic-assisted ozone oxidation process for sulfamethoxazole removal: impact factors and degradation process. <i>Desalination and Water Treatment</i> , 0, , 1-8. | 1.0 | 4 |
| 90 | Developing functional carbon nitride materials for efficient peroxymonosulfate activation: From interface catalysis to irradiation synergy. , 2022, 1, 21-33. | | 1 |