# Biochar as an Electron Shuttle between Bacteria and Fe(

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| # | Article | IF | Citations |
|---|---|---|---|
| 2 | Biochar as an Electron Shuttle between Bacteria and Fe(III) Minerals. Environmental Science and Technology Letters, 2014, 1, 339-344. | 3.9 | 432 |
| 3 | Biochar as an electron shuttle for reductive dechlorination of pentachlorophenol by Geobacter sulfurreducens. Scientific Reports, 2015, 5, 16221. | 1.6 | 236 |
| 4 | Plant growth responses to biochar amendment of Mediterranean soils deficient in iron and phosphorus. Journal of Plant Nutrition and Soil Science, 2015, 178, 567-575. | 1.1 | 13 |
| 5 | The Electrochemical Properties of Biochars and How They Affect Soil Redox Properties and Processes. Agronomy, 2015, 5, 322-340. | 1.3 | 122 |
| 6 | Effect of biochar and liming on soil nitrous oxide emissions from a temperate maize cropping system. Soil, 2015, 1, 707-717. | 2.2 | 36 |
| 7 | The molar H:Corg ratio of biochar is a key factor in mitigating N2O emissions from soil. Agriculture, Ecosystems and Environment, 2015, 202, 135-138. | 2.5 | 164 |
| 8 | A non-thermogenic source of black carbon in peat and coal. International Journal of Coal Geology, 2015, 144-145, 15-22. | 1.9 | 17 |
| 9 | Thermochemical conversion of lignin to functional materials: a review and future directions. Green Chemistry, 2015, 17, 4888-4907. | 4.6 | 437 |
| 10 | Plant growth improvement mediated by nitrate capture in co-composted biochar. Scientific Reports, 2015, 5, 11080. | 1.6 | 289 |
| 11 | Manipulation of Persistent Free Radicals in Biochar To Activate Persulfate for Contaminant Degradation. Environmental Science & Technology, 2015, 49, 5645-5653. | 4.6 | 684 |
| 12 | Engineered Biochar from Biofuel Residue: Characterization and Its Silver Removal Potential. ACS Applied Materials & Interfaces, 2015, 7, 10634-10640. | 4.0 | 98 |
| 13 | Oxidation of <scp>F</scp>e(<scp>II</scp>)â€‹<scp>EDTA</scp> by nitrite and by two nitrateâ€reducing Fe(<scp>II</scp>)â€oxidizing <i><scp>A</scp>cidovorax</i> strains. Geobiology, 2015, 13, 198-207. | 1.1 | 43 |
| 14 | Secondary Mineral Formation During Ferrihydrite Reduction by<i>Shewanella oneidensis</i>MR-1 Depends on Incubation Vessel Orientation and Resulting Gradients of Cells, Fe<sup>2+</sup>and Fe Minerals. Geomicrobiology Journal, 2015, 32, 878-889. | 1.0 | 23 |
| 15 | Development of Biochar-Based Functional Materials: Toward a Sustainable Platform Carbon Material. Chemical Reviews, 2015, 115, 12251-12285. | 23.0 | 1,149 |
| 16 | The contentious nature of soil organic matter. Nature, 2015, 528, 60-68. | 13.7 | 2,418 |
| 17 | Application of Biochar Produced From Biowaste Materials for Environmental Protection and Sustainable Agriculture Production. , 2016, , 73-89. | | 12 |
| 18 | DGGE-Profiling of Culturable Biochar-Enriched Microbial Communities. , 2016, , 78-108. | | 0 |
| 19 | Elucidating the Impacts of Biochar Applications on Nitrogen Cycling Microbial Communities. , 2016, , 163-198. | | 22 |

| # | Article | IF | Citations |
|---|---|---|---|
| 20 | Soil biochar amendment shapes the composition of N2O-reducing microbial communities. Science of the Total Environment, 2016, 562, 379-390. | 3.9 | 117 |
| 21 | Iron biofortification of wheat grains through integrated use of organic and chemical fertilizers in pH affected calcareous soil. Plant Physiology and Biochemistry, 2016, 104, 284-293. | 2.8 | 72 |
| 22 | Nutrient release and ammonium sorption by poultry litter and wood biochars in stormwater treatment. Science of the Total Environment, 2016, 553, 596-606. | 3.9 | 97 |
| 23 | Improved bioreduction of nitrobenzene by black carbon/biochar derived from crop residues. RSC Advances, 2016, 6, 84388-84396. | 1.7 | 26 |
| 24 | Electron Shuttles Enhance Anaerobic Ammonium Oxidation Coupled to Iron(III) Reduction. Environmental Science & Technology, 2016, 50, 9298-9307. | 4.6 | 217 |
| 25 | Influence of morphological and chemical features of biochar on hydrogen peroxide activation: implications on sulfamethazine degradation. RSC Advances, 2016, 6, 73186-73196. | 1.7 | 98 |
| 26 | Effects of three different biochars on aggregate stability, organic carbon mobility and micronutrient bioavailability. Journal of Environmental Management, 2016, 181, 770-778. | 3.8 | 65 |
| 27 | Insoluble/immobilized redox mediators for catalyzing anaerobic bio-reduction of contaminants. Reviews in Environmental Science and Biotechnology, 2016, 15, 379-409. | 3.9 | 32 |
| 28 | Enhanced bioleaching efficiency of metals from E-wastes driven by biochar. Journal of Hazardous Materials, 2016, 320, 393-400. | 6.5 | 66 |
| 29 | Excellently reactive Ni/Fe bimetallic catalyst supported by biochar for the remediation of decabromodiphenyl contaminated soil: Reactivity, mechanism, pathways and reducing secondary risks. Journal of Hazardous Materials, 2016, 320, 341-349. | 6.5 | 79 |
| 30 | Iron Biofortification of Cereals Grown Under Calcareous Soils: Problems and Solutions. , 2016, , 231-258. | | 8 |
| 31 | The electron donating capacity of biochar is dramatically underestimated. Scientific Reports, 2016, 6, 32870. | 1.6 | 106 |
| 32 | Asynchronous reductive release of iron and organic carbon from hematiteâ€“humic acid complexes. Chemical Geology, 2016, 430, 13-20. | 1.4 | 44 |
| 33 | Biochar-Facilitated Microbial Reduction of Hematite. Environmental Science & Technology, 2016, 50, 2389-2395. | 4.6 | 164 |
| 34 | Enhanced bioreduction of iron and arsenic in sediment by biochar amendment influencing microbial community composition and dissolved organic matter content and composition. Journal of Hazardous Materials, 2016, 311, 20-29. | 6.5 | 188 |
| 35 | Biochar interferes with kiwifruit Fe-nutrition in calcareous soil. Geoderma, 2016, 272, 10-19. | 2.3 | 29 |
| 36 | Wood-Derived Black Carbon (Biochar) as a Microbial Electron Donor and Acceptor. Environmental Science and Technology Letters, 2016, 3, 62-66. | 3.9 | 261 |
| 37 | Biochar-induced N2O emission reductions after field incorporation in a loam soil. Geoderma, 2016, 267, 10-16. | 2.3 | 84 |

| # | Article | IF | Citations |
|---|---|---|---|
| 38 | Biochar as Electron Acceptor for Microbial Extracellular Respiration. Geomicrobiology Journal, 2016, 33, 530-536. | 1.0 | 56 |
| 39 | Solid-Phase Speciation and Solubility of Phosphorus in an Acid Sulfate Paddy Soil during Soil Reduction and Reoxidation as Affected by Oil Palm Ash and Biochar. Journal of Agricultural and Food Chemistry, 2017, 65, 704-710. | 2.4 | 23 |
| 40 | Biochar decreases nitrogen oxide and enhances methane emissions via altering microbial community composition of anaerobic paddy soil. Science of the Total Environment, 2017, 581-582, 689-696. | 3.9 | 84 |
| 41 | Improving iron bioavailability and nutritional value of maize (<i>Zea mays</i>L.) in sulfur-treated calcareous soil. Archives of Agronomy and Soil Science, 2017, 63, 1255-1266. | 1.3 | 10 |
| 42 | Nanoscale analyses of the surface structure and composition of biochars extracted from field trials or after co-composting using advanced analytical electron microscopy. Geoderma, 2017, 294, 70-79. | 2.3 | 84 |
| 43 | Toward a Better Assessment of Biocharâ€“Nitrous Oxide Mitigation Potential at the Field Scale. Journal of Environmental Quality, 2017, 46, 237-246. | 1.0 | 66 |
| 44 | Bacterial Community Composition Associated with Pyrogenic Organic Matter (Biochar) Varies with Pyrolysis Temperature and Colonization Environment. MSphere, 2017, 2, . | 1.3 | 46 |
| 45 | Hydrothermal Carbon-Mediated Fenton-Like Reaction Mechanism in the Degradation of Alachlor: Direct Electron Transfer from Hydrothermal Carbon to Fe(III). ACS Applied Materials & Interfaces, 2017, 9, 17115-17124. | 4.0 | 163 |
| 46 | Improved quinoa growth, physiological response, and seed nutritional quality in three soils having different stresses by the application of acidified biochar and compost. Plant Physiology and Biochemistry, 2017, 116, 127-138. | 2.8 | 86 |
| 47 | Significant enhancement by biochar of caproate production via chain elongation. Water Research, 2017, 119, 150-159. | 5.3 | 124 |
| 48 | Effects and mechanisms of biochar-microbe interactions in soil improvement and pollution remediation: A review. Environmental Pollution, 2017, 227, 98-115. | 3.7 | 634 |
| 50 | Effects of humic acid concentration on the microbially-mediated reductive solubilization of Pu(IV) polymers. Journal of Hazardous Materials, 2017, 339, 347-353. | 6.5 | 12 |
| 51 | Rapid electron transfer by the carbon matrix in natural pyrogenic carbon. Nature Communications, 2017, 8, 14873. | 5.8 | 385 |
| 52 | Impact of different feedstocks derived biochar amendment with cadmium low uptake affinity cultivar of pak choi (Brassica rapa ssb. chinensis L.) on phytoavoidation of Cd to reduce potential dietary toxicity. Ecotoxicology and Environmental Safety, 2017, 141, 129-138. | 2.9 | 84 |
| 53 | Straw amendment to paddy soil stimulates denitrification but biochar amendment promotes anaerobic ammonia oxidation. Journal of Soils and Sediments, 2017, 17, 2428-2437. | 1.5 | 41 |
| 54 | Catalytic role of iron in the formation of silver nanoparticles in photo-irradiated Ag + -dissolved organic matter solution. Environmental Pollution, 2017, 225, 66-73. | 3.7 | 18 |
| 55 | Potential role of biochars in decreasing soil acidification - A critical review. Science of the Total Environment, 2017, 581-582, 601-611. | 3.9 | 343 |
| 56 | Biochar increases nitrogen retention and lowers greenhouse gas emissions when added to composting poultry litter. Waste Management, 2017, 61, 138-149. | 3.7 | 119 |

| # | Article | IF | Citations |
|---|---|---|---|
| 57 | Understanding, measuring and tuning the electrochemical properties of biochar for environmental applications. Reviews in Environmental Science and Biotechnology, 2017, 16, 695-715. | 3.9 | 68 |
| 58 | Organic coating on biochar explains its nutrient retention and stimulation of soil fertility. Nature Communications, 2017, 8, 1089. | 5.8 | 371 |
| 59 | Photochemistry of Hydrochar: Reactive Oxygen Species Generation and Sulfadimidine Degradation. Environmental Science & Technology, 2017, 51, 11278-11287. | 4.6 | 208 |
| 60 | The key role of biochar in the rapid removal of decabromodiphenyl ether from aqueous solution by biochar-supported Ni/Fe bimetallic nanoparticles. Journal of Nanoparticle Research, 2017, 19, 1. | 0.8 | 12 |
| 61 | Effects of biochar on dechlorination of hexachlorobenzene and the bacterial community in paddy soil. Chemosphere, 2017, 186, 116-123. | 4.2 | 32 |
| 62 | Activity and Reactivity of Pyrogenic Carbonaceous Matter toward Organic Compounds. Environmental Science & Technology, 2017, 51, 8893-8908. | 4.6 | 213 |
| 63 | Redox-Active Oxygen-Containing Functional Groups in Activated Carbon Facilitate Microbial Reduction of Ferrihydrite. Environmental Science & Technology, 2017, 51, 9709-9717. | 4.6 | 113 |
| 64 | Pyrogenic temperature affects the particle size of biochar-supported nanoscaled zero valent iron (nZVI) and its silver removal capacity. Chemical Speciation and Bioavailability, 2017, 29, 179-185. | 2.0 | 13 |
| 65 | Black Carbon (Biochar) In Water/Soil Environments: Molecular Structure, Sorption, Stability, and Potential Risk. Environmental Science & Technology, 2017, 51, 13517-13532. | 4.6 | 441 |
| 66 | Soil biochar amendment affects the diversity of nosZ transcripts: Implications for N2O formation. Scientific Reports, 2017, 7, 3338. | 1.6 | 55 |
| 67 | BIOCHAR AS A TOOL TO REDUCE THE AGRICULTURAL GREENHOUSE-GAS BURDEN â€" KNOWNS, UNKNOWNS AND FUTURE RESEARCH NEEDS. Journal of Environmental Engineering and Landscape Management, 2017, 25, 114-139. | 0.4 | 144 |
| 68 | Applications of biochar in redox-mediated reactions. Bioresource Technology, 2017, 246, 271-281. | 4.8 | 322 |
| 69 | Cost-effective enhanced iron bioavailability in rice grain grown on calcareous soil by sulfur mediation and its effect on heavy metals mineralization. Environmental Science and Pollution Research, 2017, 24, 1219-1228. | 2.7 | 16 |
| 70 | Does soil aging affect the N<sub>2</sub>O mitigation potential of biochar? A combined microcosm and field study. GCB Bioenergy, 2017, 9, 953-964. | 2.5 | 65 |
| 71 | Biochar increases arsenic release from an anaerobic paddy soil due to enhanced microbial reduction of iron and arsenic. Environmental Pollution, 2017, 220, 514-522. | 3.7 | 143 |
| 72 | Biochar Addition Increases the Rates of Dissimilatory Iron Reduction and Methanogenesis in Ferrihydrite Enrichments. Frontiers in Microbiology, 2017, 8, 589. | 1.5 | 31 |
| 73 | Persistent free radicals in carbon-based materials on transformation of refractory organic contaminants (ROCs) in water: A critical review. Water Research, 2018, 137, 130-143. | 5.3 | 255 |
| 74 | Improvement in productivity, nutritional quality, and antioxidative defense mechanisms of sunflower (Helianthus annuus L.) and maize (Zea mays L.) in nickel contaminated soil amended with different biochar and zeolite ratios. Journal of Environmental Management, 2018, 218, 256-270. | 3.8 | 66 |

| # | Article | IF | Citations |
|---|---|---|---|
| 75 | Dynamic biochar effects on soil nitrous oxide emissions and underlying microbial processes during the maize growing season. Soil Biology and Biochemistry, 2018, 122, 81-90. | 4.2 | 52 |
| 76 | Insight into Multiple and Multilevel Structures of Biochars and Their Potential Environmental Applications: A Critical Review. Environmental Science & Technology, 2018, 52, 5027-5047. | 4.6 | 593 |
| 77 | Biochar affects community composition of nitrous oxide reducers in a field experiment. Soil Biology and Biochemistry, 2018, 119, 143-151. | 4.2 | 46 |
| 78 | Red mud-modified biochar reduces soil arsenic availability and changes bacterial composition. Environmental Chemistry Letters, 2018, 16, 615-622. | 8.3 | 60 |
| 79 | Use of magnetic biochars for the immobilization of heavy metals in a multi-contaminated soil. Science of the Total Environment, 2018, 622-623, 892-899. | 3.9 | 120 |
| 80 | Characterization of biochar derived from rice husks and its potential in chlorobenzene degradation. Carbon, 2018, 130, 730-740. | 5.4 | 179 |
| 81 | Removal of hexavalent chromium in aqueous solutions using biochar: Chemical and spectroscopic investigations. Science of the Total Environment, 2018, 625, 1567-1573. | 3.9 | 190 |
| 82 | Humic substances, their microbial interactions and effects on biological transformations of organic pollutants in water and soil: A review. Chemosphere, 2018, 202, 420-437. | 4.2 | 236 |
| 83 | Microbial reduction of Ferrihydrite in the presence of reduced Graphene oxide materials: Alteration of Fe(III) reduction rate, biomineralization product and settling behavior. Chemical Geology, 2018, 476, 272-279. | 1.4 | 15 |
| 84 | Enhanced iron(III) reduction following amendment of paddy soils with biochar and glucose modified biochar. Environmental Science and Pollution Research, 2018, 25, 91-103. | 2.7 | 23 |
| 85 | Effect of biochar on photosynthetic microorganism growth and iron cycling in paddy soil under different phosphate levels. Science of the Total Environment, 2018, 612, 223-230. | 3.9 | 35 |
| 86 | Humic acids facilitated microbial reduction of polymeric Pu(IV) under anaerobic conditions. Science of the Total Environment, 2018, 610-611, 1321-1328. | 3.9 | 11 |
| 87 | Redox-active reactions in denitrification provided by biochars pyrolyzed at different temperatures. Science of the Total Environment, 2018, 615, 1547-1556. | 3.9 | 82 |
| 88 | Transcriptional Activity of Arsenic-Reducing Bacteria and Genes Regulated by Lactate and Biochar during Arsenic Transformation in Flooded Paddy Soil. Environmental Science & Technology, 2018, 52, 61-70. | 4.6 | 105 |
| 89 | Simultaneous alleviation of cadmium and arsenic accumulation in rice by applying zero-valent iron and biochar to contaminated paddy soils. Chemosphere, 2018, 195, 260-271. | 4.2 | 281 |
| 90 | Roles of different active metal-reducing bacteria in arsenic release from arsenic-contaminated paddy soil amended with biochar. Journal of Hazardous Materials, 2018, 344, 958-967. | 6.5 | 123 |
| 91 | Biochar accelerates microbial reductive debromination of 2,2â€²,4,4â€²-tetrabromodiphenyl ether (BDE-47) in anaerobic mangrove sediments. Journal of Hazardous Materials, 2018, 341, 177-186. | 6.5 | 91 |
| 92 | Prominent Conductor Mechanism-Induced Electron Transfer of Biochar Produced by Pyrolysis of Nickel-Enriched Biomass. Catalysts, 2018, 8, 573. | 1.6 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 93 | <i>Pyrolysis of Wood Excelsior Residues for Biochar and Renewable Energy Production</i>. , 2018, , . | | 2 |
| 94 | Black carbon yields highest nutrient and lowest arsenic release when using rice residuals in paddy soils. Scientific Reports, 2018, 8, 17004. | 1.6 | 21 |
| 95 | Biochar Modulates Methanogenesis through Electron Syntrophy of Microorganisms with Ethanol as a Substrate. Environmental Science & Technology, 2018, 52, 12198-12207. | 4.6 | 172 |
| 96 | Application of surface complexation modeling to trace metals uptake by biochar-amended agricultural soils. Applied Geochemistry, 2018, 88, 103-112. | 1.4 | 30 |
| 97 | Effect of dissolved organic carbon from sludge, Rice straw and spent coffee ground biochar on the mobility of arsenic in soil. Science of the Total Environment, 2018, 636, 1241-1248. | 3.9 | 111 |
| 98 | Remediation of arsenic-contaminated paddy soil by iron-modified biochar. Environmental Science and Pollution Research, 2018, 25, 20792-20801. | 2.7 | 91 |
| 99 | Biochar enhanced biological nitrobenzene reduction with a mixed culture in anaerobic systems: Short-term and long-term assessments. Chemical Engineering Journal, 2018, 351, 912-921. | 6.6 | 52 |
| 100 | Activate persulfate for catalytic degradation of adsorbed anthracene on coking residues: Role of persistent free radicals. Chemical Engineering Journal, 2018, 351, 631-640. | 6.6 | 36 |
| 101 | Simultaneous Quantification of Electron Transfer by Carbon Matrices and Functional Groups in Pyrogenic Carbon. Environmental Science & Technology, 2018, 52, 8538-8547. | 4.6 | 95 |
| 102 | Typical Soil Redox Processes in Pentachlorophenol Polluted Soil Following Biochar Addition. Frontiers in Microbiology, 2018, 9, 579. | 1.5 | 28 |
| 103 | Fate of As(III) and As(V) during Microbial Reduction of Arsenic-Bearing Ferrihydrite Facilitated by Activated Carbon. ACS Earth and Space Chemistry, 2018, 2, 878-887. | 1.2 | 30 |
| 104 | Enhanced nitrate removal and high selectivity towards dinitrogen for groundwater remediation using biochar-supported nano zero-valent iron. Chemical Engineering Journal, 2018, 353, 595-605. | 6.6 | 137 |
| 105 | Characterization and quantification of electron donating capacity and its structure dependence in biochar derived from three waste biomasses. Chemosphere, 2018, 211, 1073-1081. | 4.2 | 127 |
| 106 | Particle size dependence of the physicochemical properties of biochar. Chemosphere, 2018, 212, 385-392. | 4.2 | 63 |
| 107 | Surface properties of activated sludge-derived biochar determine the facilitating effects on Geobacter co-cultures. Water Research, 2018, 142, 441-451. | 5.3 | 104 |
| 108 | Arsenic immobilization through regulated ferrolysis in paddy field amendment with bismuth impregnated biochar. Science of the Total Environment, 2019, 648, 993-1001. | 3.9 | 68 |
| 109 | Reconsideration of heterostructures of biochars: Morphology, particle size, elemental composition, reactivity and toxicity. Environmental Pollution, 2019, 254, 113017. | 3.7 | 28 |
| 110 | Soil organic matter amount determines the behavior of iron and arsenic in paddy soil with microbial fuel cells. Chemosphere, 2019, 237, 124459. | 4.2 | 48 |

| # | Article | IF | Citations |
|---|---|---|---|
| 111 | Effects and mechanism of riboflavin on the growth ofAlcaligenes faecalisunder bias conditions. RSC Advances, 2019, 9, 22957-22965. | 1.7 | 0 |
| 112 | The amazing potential of fungi: 50 ways we can exploit fungi industrially. Fungal Diversity, 2019, 97, 1-136. | 4.7 | 459 |
| 113 | Effects of post-pyrolysis air oxidation on the chemical composition of biomass chars investigated by solid-state nuclear magnetic resonance spectroscopy. Carbon, 2019, 153, 173-178. | 5.4 | 10 |
| 114 | Photo-induced redox coupling of dissolved organic matter and iron in biochars and soil system: Enhanced mobility of arsenic. Science of the Total Environment, 2019, 689, 1037-1043. | 3.9 | 34 |
| 115 | Electroactive Biochar for Large-Scale Environmental Applications of Microbial Electrochemistry. ACS Sustainable Chemistry and Engineering, 2019, 7, 18198-18212. | 3.2 | 46 |
| 116 | The effect of biochar amendment on N-cycling genes in soils: A meta-analysis. Science of the Total Environment, 2019, 696, 133984. | 3.9 | 85 |
| 117 | Study on the degradation of accumulated bisphenol S and regeneration of magnetic sludge-derived biochar upon microwave irritation in the presence of hydrogen peroxide for application in integrated process. Bioresource Technology, 2019, 293, 122072. | 4.8 | 28 |
| 118 | Biochar enhanced microbial degradation of 17Î²-estradiol. Environmental Sciences: Processes and Impacts, 2019, 21, 1736-1744. | 1.7 | 10 |
| 119 | Biochar alleviates Cd phytotoxicity by minimizing bioavailability and oxidative stress in pak choi (Brassica chinensis L.) cultivated in Cd-polluted soil. Journal of Environmental Management, 2019, 250, 109500. | 3.8 | 152 |
| 120 | Characterization of biochars derived from different materials and their effects on microbial dechlorination of pentachlorophenol in a consortium. RSC Advances, 2019, 9, 917-923. | 1.7 | 32 |
| 121 | TiO2 supported on Salvinia molesta biochar for heterogeneous photocatalytic degradation of Acid Orange 7 dye. Journal of Environmental Chemical Engineering, 2019, 7, 102879. | 3.3 | 69 |
| 122 | A novel TiO2/biochar composite catalysts for photocatalytic degradation of methyl orange. Chemosphere, 2019, 222, 391-398. | 4.2 | 238 |
| 123 | Biochar and ash derived from silicon-rich rice husk decrease inorganic arsenic species in rice grain. Science of the Total Environment, 2019, 684, 360-370. | 3.9 | 30 |
| 124 | Interaction with low molecular weight organic acids affects the electron shuttling of biochar for Cr(VI) reduction. Journal of Hazardous Materials, 2019, 378, 120705. | 6.5 | 90 |
| 125 | Unveiling the mechanism of biochar-activated hydrogen peroxide on the degradation of ciprofloxacin. Chemical Engineering Journal, 2019, 374, 520-530. | 6.6 | 122 |
| 126 | The synergistic interaction between sulfate-reducing bacteria and pyrogenic carbonaceous matter in DDT decay. Chemosphere, 2019, 233, 252-260. | 4.2 | 6 |
| 127 | Enhanced ciprofloxacin removal by sludge-derived biochar: Effect of humic acid. Chemosphere, 2019, 231, 495-501. | 4.2 | 53 |
| 128 | Biochar-Mediated Anaerobic Oxidation of Methane. Environmental Science & Technology, 2019, 53, 6660-6668. | 4.6 | 92 |

| # | Article | IF | Citations |
|---|---|---|---|
| 129 | Graphite oxide- and graphene oxide-supported catalysts for microwave-assisted glucose isomerisation in water. Green Chemistry, 2019, 21, 4341-4353. | 4.6 | 80 |
| 130 | Accelerated Microbial Reduction of Azo Dye by Using Biochar from Iron-Rich-Biomass Pyrolysis. Materials, 2019, 12, 1079. | 1.3 | 11 |
| 131 | Efficient removal of atrazine by iron-modified biochar loaded Acinetobacter lwoffii DNS32. Science of the Total Environment, 2019, 682, 59-69. | 3.9 | 61 |
| 132 | The effect of a biochar temperature series on denitrification: which biochar properties matter?. Soil Biology and Biochemistry, 2019, 135, 173-183. | 4.2 | 49 |
| 133 | Selective enhancement of Mn bioleaching from ferromanganese ores in presence of electron shuttles using dissimilatory Mn reducing consortia. Hydrometallurgy, 2019, 186, 269-274. | 1.8 | 9 |
| 134 | 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. | 5.3 | 347 |
| 135 | Coagulation treatment of swine wastewater by the method of in-situ forming layered double hydroxides and sludge recycling for preparation of biochar composite catalyst. Chemical Engineering Journal, 2019, 369, 784-792. | 6.6 | 82 |
| 136 | Sonocatalytic activity of biochar-supported ZnO nanorods in degradation of gemifloxacin: Synergy study, effect of parameters and phytotoxicity evaluation. Ultrasonics Sonochemistry, 2019, 55, 44-56. | 3.8 | 183 |
| 137 | Magnetic biochar catalysts from anaerobic digested sludge: Production, application and environment impact. Environment International, 2019, 126, 302-308. | 4.8 | 76 |
| 138 | Biochar-supported nZVI (nZVI/BC) for contaminant removal from soil and water: A critical review. Journal of Hazardous Materials, 2019, 373, 820-834. | 6.5 | 307 |
| 139 | Biochar's role as an electron shuttle for mediating soil N2O emissions. Soil Biology and Biochemistry, 2019, 133, 94-96. | 4.2 | 61 |
| 140 | Bioleaching of Electronic Waste Using Extreme Acidophiles. , 2019, , 153-174. | | 12 |
| 141 | Temporal changes in magnetic signal of burnt soils â€" A compelling three years pilot study. Science of the Total Environment, 2019, 669, 729-738. | 3.9 | 15 |
| 142 | Influence of graphene oxide and biochar on anaerobic degradation of petroleum hydrocarbons. Journal of Bioscience and Bioengineering, 2019, 128, 72-79. | 1.1 | 27 |
| 143 | Biochar mediates activation of aged nanoscale ZVI by Shewanella putrefaciens CN32 to enhance the degradation of Pentachlorophenol. Chemical Engineering Journal, 2019, 368, 148-156. | 6.6 | 44 |
| 144 | The use of biochar in animal feeding. PeerJ, 2019, 7, e7373. | 0.9 | 101 |
| 145 | Microbial recycling cells (MRCs): A new platform of microbial electrochemical technologies based on biocompatible materials, aimed at cycling carbon and nutrients in agro-food systems. Science of the Total Environment, 2019, 649, 1349-1361. | 3.9 | 34 |
| 146 | Cotransport of biochar and Shewanella oneidensis MR-1 in saturated porous media: Impacts of electrostatic interaction, extracellular electron transfer and microbial taxis. Science of the Total Environment, 2019, 658, 95-104. | 3.9 | 25 |

| # | Article | IF | Citations |
|---|---|---|---|
| 147 | Assessment of biochar and zero-valent iron for in-situ remediation of chromated copper arsenate contaminated soil. Science of the Total Environment, 2019, 655, 414-422. | 3.9 | 58 |
| 148 | Review of biochar for the management of contaminated soil: Preparation, application and prospect. Science of the Total Environment, 2019, 659, 473-490. | 3.9 | 310 |
| 149 | Nonnegligible role of biomass types and its compositions on the formation of persistent free radicals in biochar: Insight into the influences on Fenton-like process. Chemical Engineering Journal, 2019, 361, 353-363. | 6.6 | 184 |
| 150 | Redox-Mediated Biochar-Contaminant Interactions in Soil. , 2019, , 409-419. | | 5 |
| 151 | Future Biochar Research Directions. , 2019, , 423-435. | | 4 |
| 152 | Modeling the Surface Chemistry of Biochars. , 2019, , 59-72. | | 2 |
| 153 | Maghemite (Î³-Fe2O3) nanoparticles enhance dissimilatory ferrihydrite reduction by Geobacter sulfurreducens: Impacts on iron mineralogical change and bacterial interactions. Journal of Environmental Sciences, 2019, 78, 193-203. | 3.2 | 23 |
| 154 | A pilot-scale, bi-layer bioretention system with biochar and zero-valent iron for enhanced nitrate removal from stormwater. Water Research, 2019, 148, 378-387. | 5.3 | 114 |
| 155 | Biochar as both electron donor and electron shuttle for the reduction transformation of Cr(VI) during its sorption. Environmental Pollution, 2019, 244, 423-430. | 3.7 | 258 |
| 156 | New methods for assessing electron storage capacity and redox reversibility of biochar. Chemosphere, 2019, 215, 827-834. | 4.2 | 45 |
| 157 | Easily mineralizable carbon in manureâ€based biochar added to a soil influences N<sub>2</sub>O emissions and microbialâ€N cycling genes. Land Degradation and Development, 2019, 30, 406-416. | 1.8 | 21 |
| 158 | A pilot study on using biochars as sustainable amendments to inhibit rice uptake of Hg from a historically polluted soil in a Karst region of China. Ecotoxicology and Environmental Safety, 2019, 170, 18-24. | 2.9 | 55 |
| 159 | Electron shuttling mediated by humic substances fuels anaerobic methane oxidation and carbon burial in wetland sediments. Science of the Total Environment, 2019, 650, 2674-2684. | 3.9 | 97 |
| 160 | Effect of moisture condition on the immobilization of Cd in red paddy soil using passivators. Environmental Technology (United Kingdom), 2019, 40, 2705-2714. | 1.2 | 20 |
| 161 | Mitigation of arsenic accumulation in rice: An agronomical, physico-chemical, and biological approach â€“ A critical review. Critical Reviews in Environmental Science and Technology, 2020, 50, 31-71. | 6.6 | 56 |
| 162 | The mechanisms of biochar interactions with microorganisms in soil. Environmental Geochemistry and Health, 2020, 42, 2495-2518. | 1.8 | 125 |
| 163 | Graphitic biochar catalysts from anaerobic digestion sludge for nonradical degradation of micropollutants and disinfection. Chemical Engineering Journal, 2020, 384, 123244. | 6.6 | 105 |
| 164 | Chemical and biological immobilization mechanisms of potentially toxic elements in biochar-amended soils. Critical Reviews in Environmental Science and Technology, 2020, 50, 903-978. | 6.6 | 157 |

| # | Article | IF | Citations |
|---|---|---|---|
| 165 | Insight into the influence of pyrolysis temperature on Fenton-like catalytic performance of magnetic biochar. Chemical Engineering Journal, 2020, 380, 122518. | 6.6 | 69 |
| 166 | The effects of biochar as the electron shuttle on the ferrihydrite reduction and related arsenic (As) fate. Journal of Hazardous Materials, 2020, 390, 121391. | 6.5 | 54 |
| 167 | Hydrophilic trace organic contaminants in urban stormwater: occurrence, toxicological relevance, and the need to enhance green stormwater infrastructure. Environmental Science: Water Research and Technology, 2020, 6, 15-44. | 1.2 | 66 |
| 168 | Maize straw biochar addition inhibited pentachlorophenol dechlorination by strengthening the predominant soil reduction processes in flooded soil. Journal of Hazardous Materials, 2020, 386, 122002. | 6.5 | 26 |
| 169 | Use of hardwood and sulfurized-hardwood biochars as amendments to floodplain soil from South River, VA, USA: Impacts of drying-rewetting on Hg removal. Science of the Total Environment, 2020, 712, 136018. | 3.9 | 6 |
| 170 | A controllable floating pDA-PVDF bead for enhanced decomposition of H2O2 and degradation of dyes. Chemical Engineering Journal, 2020, 385, 123907. | 6.6 | 49 |
| 171 | Aggregation-dependent electron transfer via redox-active biochar particles stimulate microbial ferrihydrite reduction. Science of the Total Environment, 2020, 703, 135515. | 3.9 | 57 |
| 172 | Heterogeneous activation of peroxymonosulfate by a biochar-supported Co3O4 composite for efficient degradation of chloramphenicols. Environmental Pollution, 2020, 257, 113610. | 3.7 | 95 |
| 173 | Accelerating effects of biochar for pyrite-catalyzed Fenton-like oxidation of herbicide 2,4-D. Chemical Engineering Journal, 2020, 391, 123605. | 6.6 | 54 |
| 174 | Pyrolysis-temperature depended electron donating and mediating mechanisms of biochar for Cr(VI) reduction. Journal of Hazardous Materials, 2020, 388, 121794. | 6.5 | 103 |
| 175 | Application of biochar prepared from ethanol refinery by-products for Hg stabilization in floodplain soil: Impacts of drying and rewetting. Environmental Pollution, 2020, 267, 115396. | 3.7 | 6 |
| 176 | Reactivity of Pyrogenic Carbonaceous Matter (PCM) in mediating environmental reactions: Current knowledge and future trends. Frontiers of Environmental Science and Engineering, 2020, 14, 1. | 3.3 | 10 |
| 177 | Reaction of Substituted Phenols with Lignin Char: Dual Oxidative and Reductive Pathways Depending on Substituents and Conditions. Environmental Science & Technology, 2020, 54, 15811-15820. | 4.6 | 21 |
| 178 | Effect of Interstage Hydrothermal Treatment on Anaerobic Digestion of Sewage Sludge: Speciation Evolution of Phosphorus, Iron, and Sulfur. ACS Sustainable Chemistry and Engineering, 2020, 8, 16515-16525. | 3.2 | 24 |
| 179 | Biochar-Terracotta Conductive Composites: New Design for Bioelectrochemical Systems. Frontiers in Energy Research, 2020, 8, . | 1.2 | 6 |
| 180 | Reusable magnetite nanoparticlesâ€“biochar composites for the efficient removal of chromate from water. Scientific Reports, 2020, 10, 19007. | 1.6 | 25 |
| 181 | Relationship of the physicochemical properties of novel ZnO/biochar composites to their efficiencies in the degradation of sulfamethoxazole and methyl orange. Science of the Total Environment, 2020, 748, 141381. | 3.9 | 62 |
| 182 | Outstanding reinforcement on chain elongation through five-micrometer-sized biochar. Renewable Energy, 2020, 161, 230-239. | 4.3 | 19 |

| # | Article | IF | Citations |
|---|---|---|---|
| 183 | Fe(II)-catalyzed transformation of Fe (oxyhydr)oxides across organic matter fractions in organically amended soils. Science of the Total Environment, 2020, 748, 141125. | 3.9 | 15 |
| 184 | Biochar amendment mitigates the health risks of dietary methylmercury exposure from rice consumption in mercury-contaminated areas. Environmental Pollution, 2020, 267, 115547. | 3.7 | 16 |
| 185 | Properties and mechanism of Cr(VI) adsorption and reduction by K<sub>2</sub>FeO<sub>4</sub> in presence of Mn(II). Environmental Technology (United Kingdom), 2022, 43, 918-926. | 1.2 | 3 |
| 186 | Promoting mechanism of electronic shuttle for bioavailability of Fe(III) oxide and its environmental significance. Water Science and Technology: Water Supply, 2020, 20, 1157-1166. | 1.0 | 2 |
| 187 | Enhanced Transformation of Cr(VI) by Heterocyclic-N within Nitrogen-Doped Biochar: Impact of Surface Modulatory Persistent Free Radicals (PFRs). Environmental Science & Technology, 2020, 54, 8123-8132. | 4.6 | 107 |
| 188 | Role of Pyrogenic Carbon in Parallel Microbial Reduction of Nitrobenzene in the Liquid and Sorbed Phases. Environmental Science & Technology, 2020, 54, 8760-8769. | 4.6 | 21 |
| 189 | Vindication of humic substances as a key component of organic matter in soil and water. Advances in Agronomy, 2020, , 1-37. | 2.4 | 64 |
| 190 | Biochar based catalysts for the abatement of emerging pollutants: A review. Chemical Engineering Journal, 2020, 394, 124856. | 6.6 | 129 |
| 191 | Shifts in short-chain fatty acid profile, Fe(III) reduction and bacterial community with biochar amendment in rice paddy soil. FEMS Microbiology Ecology, 2020, 96, . | 1.3 | 11 |
| 192 | Recent trends in biochar production methods and its application as a soil health conditioner: a review. SN Applied Sciences, 2020, 2, 1. | 1.5 | 112 |
| 193 | Effects of biochar-based controlled release nitrogen fertilizer on nitrogen-use efficiency of oilseed rape (Brassica napus L.). Scientific Reports, 2020, 10, 11063. | 1.6 | 81 |
| 194 | Biochar as electron donor for reduction of N2O by Paracoccus denitrificans. FEMS Microbiology Ecology, 2020, 96, . | 1.3 | 14 |
| 195 | High-pH and anoxic conditions during soil organic matter extraction increases its electron-exchange capacity and ability to stimulate microbial Fe(III) reduction by electron shuttling. Biogeosciences, 2020, 17, 683-698. | 1.3 | 20 |
| 196 | Alleviation of Salinity Induced Oxidative Stress in Chenopodium quinoa by Fe Biofortification and Biocharâ€"Endophyte Interaction. Agronomy, 2020, 10, 168. | 1.3 | 19 |
| 197 | AQDS and Redox-Active NOM Enables Microbial Fe(III)-Mineral Reduction at cm-Scales. Environmental Science & Technology, 2020, 54, 4131-4139. | 4.6 | 49 |
| 198 | Biological performance and fouling mitigation in the biochar-amended anaerobic membrane bioreactor (AnMBR) treating pharmaceutical wastewater. Bioresource Technology, 2020, 302, 122805. | 4.8 | 80 |
| 199 | The characterization of arsenic biotransformation microbes in paddy soil after straw biochar and straw amendments. Journal of Hazardous Materials, 2020, 391, 122200. | 6.5 | 29 |
| 200 | Linking biochars properties to their capacity to modify aerobic CH4 oxidation in an upland agricultural soil. Geoderma, 2020, 363, 114179. | 2.3 | 16 |

| # | Article | IF | Citations |
|---|---|---|---|
| 201 | Biochar enhances bioelectrochemical remediation of pentachlorophenol-contaminated soils via long-distance electron transfer. Journal of Hazardous Materials, 2020, 391, 122213. | 6.5 | 78 |
| 202 | Photocatalytic degradation of methyl orange by Ag/TiO2/biochar composite catalysts in aqueous solutions. Materials Science in Semiconductor Processing, 2020, 114, 105088. | 1.9 | 101 |
| 203 | Hydrochar-Facilitated Anaerobic Digestion: Evidence for Direct Interspecies Electron Transfer Mediated through Surface Oxygen-Containing Functional Groups. Environmental Science & Technology, 2020, 54, 5755-5766. | 4.6 | 190 |
| 204 | Biochar-augmented biofilters to improve pollutant removal from stormwater â€“ can they improve receiving water quality?. Environmental Science: Water Research and Technology, 2020, 6, 1520-1537. | 1.2 | 37 |
| 205 | Activation of peroxymonosulfate by cobalt-impregnated biochar for atrazine degradation: The pivotal roles of persistent free radicals and ecotoxicity assessment. Journal of Hazardous Materials, 2020, 398, 122768. | 6.5 | 100 |
| 206 | Black carbon enriches short-range-order ferrihydrite in Amazonian Dark Earth: Interplay mechanism and environmental implications. Science of the Total Environment, 2020, 725, 138195. | 3.9 | 6 |
| 207 | Biochar acting as an electron acceptor reduces nitrate removal in woodchip denitrifying bioreactors. Ecological Engineering, 2020, 149, 105724. | 1.6 | 11 |
| 208 | Biochar enhanced the degradation of organic pollutants through a Fenton process using trace aqueous iron. Journal of Environmental Chemical Engineering, 2021, 9, 104677. | 3.3 | 26 |
| 209 | Removal of arsenate from contaminated waters by novel zirconium and zirconium-iron modified biochar. Journal of Hazardous Materials, 2021, 409, 124488. | 6.5 | 84 |
| 210 | The reduction of nitrobenzene by extracellular electron transfer facilitated by Fe-bearing biochar derived from sewage sludge. Journal of Hazardous Materials, 2021, 403, 123682. | 6.5 | 56 |
| 211 | Role of redox-active biochar with distinctive electrochemical properties to promote methane production in anaerobic digestion of waste activated sludge. Journal of Cleaner Production, 2021, 278, 123212. | 4.6 | 83 |
| 212 | Oxidative transformation of 1-naphthylamine in water mediated by different environmental black carbons. Journal of Hazardous Materials, 2021, 403, 123594. | 6.5 | 5 |
| 213 | Microbial community shift via black carbon: Insight into biological nitrogen removal from microbial assemblage and functional patterns. Environmental Research, 2021, 192, 110266. | 3.7 | 33 |
| 214 | Impact of multiple drying and rewetting events on biochar amendments for Hg stabilization in floodplain soil from South River, VA. Chemosphere, 2021, 262, 127794. | 4.2 | 6 |
| 215 | Application of biochar for the remediation of polluted sediments. Journal of Hazardous Materials, 2021, 404, 124052. | 6.5 | 67 |
| 216 | New insight into adsorption and reduction of hexavalent chromium by magnetite: Multi-step reaction mechanism and kinetic model developing. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 611, 125784. | 2.3 | 23 |
| 217 | An environmental-friendly approach to remove cyanide in gold smelting pulp by chlorination aided and corncob biochar: Performance and mechanisms. Journal of Hazardous Materials, 2021, 408, 124465. | 6.5 | 12 |
| 218 | Effects of biochar addition on the abundance, speciation, availability, and leaching loss of soil phosphorus. Science of the Total Environment, 2021, 758, 143657. | 3.9 | 56 |

| # | Article | IF | Citations |
|---|---|---|---|
| 219 | Long-Term Warming Decreases Redox Capacity of Soil Organic Matter. Environmental Science and Technology Letters, 2021, 8, 92-97. | 3.9 | 15 |
| 220 | Combined effects of rice straw-derived biochar and water management on transformation of chromium and its uptake by rice in contaminated soils. Ecotoxicology and Environmental Safety, 2021, 208, 111506. | 2.9 | 26 |
| 221 | Alteration of plant physiology by the application of biochar for remediation of metals. , 2021, , 245-262. | | 1 |
| 222 | The role of humic substances in mitigating greenhouse gases emissions: Current knowledge and research gaps. Science of the Total Environment, 2021, 750, 141677. | 3.9 | 46 |
| 223 | A review of the innovations in metal- and carbon-based catalysts explored for heterogeneous peroxymonosulfate (PMS) activation, with focus on radical vs. non-radical degradation pathways of organic contaminants. Chemical Engineering Journal, 2021, 411, 127957. | 6.6 | 458 |
| 224 | Graphite accelerate dissimilatory iron reduction and vivianite crystal enlargement. Water Research, 2021, 189, 116663. | 5.3 | 32 |
| 225 | Application of biochars in the remediation of chromium contamination: Fabrication, mechanisms, and interfering species. Journal of Hazardous Materials, 2021, 407, 124376. | 6.5 | 93 |
| 226 | Interaction between hexavalent chromium and biologically formed iron mineral-biochar composites: Kinetics, products and mechanisms. Journal of Hazardous Materials, 2021, 405, 124246. | 6.5 | 30 |
| 227 | Humin: No longer inactive natural organic matter. Chemosphere, 2021, 269, 128697. | 4.2 | 29 |
| 228 | Carryover effects of siliconâ€rich amendments in rice paddies. Soil Science Society of America Journal, 2021, 85, 314-327. | 1.2 | 12 |
| 229 | Effects of Biochar Application on Soil Properties, Plant Biomass Production, and Soil Greenhouse Gas Emissions: A Mini-Review. Agricultural Sciences, 2021, 12, 213-236. | 0.2 | 8 |
| 230 | Revealing the Mechanism of Biochar Enhancing the Production of Medium Chain Fatty Acids from Waste Activated Sludge Alkaline Fermentation Liquor. ACS ES&T Water, 2021, 1, 1014-1024. | 2.3 | 28 |
| 231 | Effects of different types of biochar on the properties and reactivity of nano zero-valent iron in soil remediation. Frontiers of Environmental Science and Engineering, 2021, 15, 1. | 3.3 | 12 |
| 232 | Effect of Two Different Biochars as a Component of Compound Feed on Nutrient Digestibility and Performance Parameters in Growing Pigs. Frontiers in Animal Science, 2021, 2, . | 0.8 | 10 |
| 233 | Fenton chemistry and reactive oxygen species in soil: Abiotic mechanisms of biotic processes, controls and consequences for carbon and nutrient cycling. Earth-Science Reviews, 2021, 214, 103525. | 4.0 | 99 |
| 234 | Pyridinic- and Pyrrolic Nitrogen in Pyrogenic Carbon Improves Electron Shuttling during Microbial Fe(III) Reduction. ACS Earth and Space Chemistry, 2021, 5, 900-909. | 1.2 | 11 |
| 235 | Community Composition and Spatial Distribution of N-Removing Microorganisms Optimized by Fe-Modified Biochar in a Constructed Wetland. International Journal of Environmental Research and Public Health, 2021, 18, 2938. | 1.2 | 6 |
| 236 | Biosynthesized Schwertmannite@Biochar composite as a heterogeneous Fenton-like catalyst for the degradation of sulfanilamide antibiotics. Chemosphere, 2021, 266, 129175. | 4.2 | 33 |

| # | Article | IF | Citations |
|---|---|---|---|
| 237 | A critical review of abiotic and microbially-mediated chemical reduction rates of Fe(III) (oxyhydr)oxides using a reactivity model. Applied Geochemistry, 2021, 126, 104895. | 1.4 | 10 |
| 238 | Enhanced denitrification performance of strain YSF15 by different molecular weight of humic acid: Mechanism based on the biological products and activity. Bioresource Technology, 2021, 325, 124709. | 4.8 | 36 |
| 239 | Abatement of Polycyclic Aromatic Hydrocarbon Residues in Biochars by Thermal Oxidation. Environmental Science and Technology Letters, 2021, 8, 451-456. | 3.9 | 8 |
| 240 | Biochar-templated surface precipitation and inner-sphere complexation effectively removes arsenic from acid mine drainage. Environmental Science and Pollution Research, 2021, 28, 45519-45533. | 2.7 | 10 |
| 241 | Effects of phosphorus modified nZVI-biochar composite on emission of greenhouse gases and changes of microbial community in soil. Environmental Pollution, 2021, 274, 116483. | 3.7 | 42 |
| 242 | Antimonate sequestration from aqueous solution using zirconium, iron and zirconium-iron modified biochars. Scientific Reports, 2021, 11, 8113. | 1.6 | 9 |
| 243 | Review on biomass feedstocks, pyrolysis mechanism and physicochemical properties of biochar: State-of-the-art framework to speed up vision of circular bioeconomy. Journal of Cleaner Production, 2021, 297, 126645. | 4.6 | 202 |
| 244 | Influence of Acidified Biochar on CO2â€“C Efflux and Micronutrient Availability in an Alkaline Sandy Soil. Sustainability, 2021, 13, 5196. | 1.6 | 6 |
| 245 | Differential responses of soil nitrogenâ€oxide emissions to organic substitution for synthetic fertilizer and biochar amendment in a subtropical tea plantation. GCB Bioenergy, 2021, 13, 1260-1274. | 2.5 | 32 |
| 246 | Developing microbial communities containing a high abundance of exoelectrogenic microorganisms using activated carbon granules. Science of the Total Environment, 2021, 768, 144361. | 3.9 | 10 |
| 247 | The Role of Biochar in Regulating the Carbon, Phosphorus, and Nitrogen Cycles Exemplified by Soil Systems. Sustainability, 2021, 13, 5612. | 1.6 | 39 |
| 248 | Transformation of Antimonate at the Biocharâ€“Solution Interface. ACS ES&T Water, 2021, 1, 2029-2036. | 2.3 | 10 |
| 249 | High-efficient nitrogen removal and its microbiological mechanism of a novel carbon self-sufficient constructed wetland. Science of the Total Environment, 2021, 775, 145901. | 3.9 | 30 |
| 250 | Biochar/Kevlar Nanofiber Mixed Matrix Nanofiltration Membranes with Enhanced Dye/Salt Separation Performance. Membranes, 2021, 11, 443. | 1.4 | 7 |
| 251 | Biomedical Implants with Chargeâ€Transfer Monitoring and Regulating Abilities. Advanced Science, 2021, 8, e2004393. | 5.6 | 18 |
| 252 | Association of biochar properties with changes in soil bacterial, fungal and fauna communities and nutrient cycling processes. Biochar, 2021, 3, 239-254. | 6.2 | 112 |
| 253 | Rice Seedling Growth Promotion by Biochar Varies With Genotypes and Application Dosages. Frontiers in Plant Science, 2021, 12, 580462. | 1.7 | 13 |
| 254 | A review of the factors affecting the performance of anaerobic membrane bioreactor and strategies to control membrane fouling. Reviews in Environmental Science and Biotechnology, 2021, 20, 607-644. | 3.9 | 25 |

| # | Article | IF | Citations |
| --- | --- | --- | --- |
| 255 | Biochemical processes mediated by iron-based materials in water treatement: Enhancing nitrogen and phosphorus removal in low C/N ratio wastewater. Science of the Total Environment, 2021, 775, 145137. | 3.9 | 64 |
| 256 | Reduction of silver ions to silver nanoparticles by biomass and biochar: Mechanisms and critical factors. Science of the Total Environment, 2021, 779, 146326. | 3.9 | 15 |
| 257 | Redox Properties of Pyrogenic Dissolved Organic Matter (pyDOM) from Biomass-Derived Chars. Environmental Science & Technology, 2021, 55, 11434-11444. | 4.6 | 21 |
| 258 | Suppressing peatland methane production by electron snorkeling through pyrogenic carbon in controlled laboratory incubations. Nature Communications, 2021, 12, 4119. | 5.8 | 21 |
| 259 | Activation of peroxymonosulfate by biochar-based catalysts and applications in the degradation of organic contaminants: A review. Chemical Engineering Journal, 2021, 416, 128829. | 6.6 | 227 |
| 260 | A critical review on biochar for enhancing biogas production from anaerobic digestion of food waste and sludge. Journal of Cleaner Production, 2021, 305, 127143. | 4.6 | 252 |
| 261 | Biochar porosity: a nature-based dependent parameter to deliver microorganisms to soils for land restoration. Environmental Science and Pollution Research, 2021, 28, 46894-46909. | 2.7 | 15 |
| 262 | Effect of granular activated carbon and other porous materials on thermal decomposition of per- and polyfluoroalkyl substances: Mechanisms and implications for water purification. Water Research, 2021, 200, 117271. | 5.3 | 48 |
| 263 | Effect of water- and acid-pickling of aquaticplant biochar on the adsorption of Cd. IOP Conference Series: Materials Science and Engineering, 2021, 1167, 012013. | 0.3 | 0 |
| 264 | Preparation and Characterization of Phosphoric Acid-Modified Biochar Nanomaterials with Highly Efficient Adsorption and Photodegradation Ability. Langmuir, 2021, 37, 9253-9263. | 1.6 | 11 |
| 265 | Lignin-enhanced reduction of structural Fe(III) in nontronite: Dual roles of lignin as electron shuttle and donor. Geochimica Et Cosmochimica Acta, 2021, 307, 1-21. | 1.6 | 27 |
| 266 | Abiotic reductive removal of organic contaminants catalyzed by carbon materials: A short review. Water Environment Research, 2021, 93, 2374-2390. | 1.3 | 0 |
| 267 | Electron transfer enhancing Fe(II)/Fe(III) cycle by sulfur and biochar in magnetic FeS@biochar to active peroxymonosulfate for 2,4-dichlorophenoxyacetic acid degradation. Chemical Engineering Journal, 2021, 417, 129238. | 6.6 | 113 |
| 268 | Pore characteristics of hydrochars and their role as a vector for soil bacteria: A critical review of engineering options. Critical Reviews in Environmental Science and Technology, 2022, 52, 4147-4171. | 6.6 | 12 |
| 269 | Enhancing the treatment of petrochemical wastewater using redox mediator suspended biofilm carriers. Biochemical Engineering Journal, 2021, 173, 108087. | 1.8 | 10 |
| 270 | Progress and prospects of applying carbonâ€based materials (and nanomaterials) to accelerate anaerobic bioprocesses for the removal of micropollutants. Microbial Biotechnology, 2022, 15, 1073-1100. | 2.0 | 7 |
| 271 | Anammox Bacteria Are Potentially Involved in Anaerobic Ammonium Oxidation Coupled to Iron(III) Reduction in the Wastewater Treatment System. Frontiers in Microbiology, 2021, 12, 717249. | 1.5 | 3 |
| 272 | Dual roles of biochar redox property in mediating 2,4-dichlorophenol degradation in the presence of Fe3+ and persulfate. Chemosphere, 2021, 279, 130456. | 4.2 | 16 |

| # | Article | IF | Citations |
|---|---|---|---|
| 273 | Physicochemical Changes in Biomass Chars by Thermal Oxidation or Ambient Weathering and Their Impacts on Sorption of a Hydrophobic and a Cationic Compound. Environmental Science & Technology, 2021, 55, 13072-13081. | 4.6 | 7 |
| 274 | Effects of nitrogen-enriched biochar on rice growth and yield, iron dynamics, and soil carbon storage and emissions: A tool to improve sustainable rice cultivation. Environmental Pollution, 2021, 287, 117565. | 3.7 | 36 |
| 275 | Application of layered double hydroxide-biochar composites in wastewater treatment: Recent trends, modification strategies, and outlook. Journal of Hazardous Materials, 2021, 420, 126569. | 6.5 | 80 |
| 276 | A critical review on the application of biochar in environmental pollution remediation: Role of persistent free radicals (PFRs). Journal of Environmental Sciences, 2021, 108, 201-216. | 3.2 | 76 |
| 277 | Influence of modified biochar supported Feâ€"Cu/polyvinylpyrrolidone on nitrate removal and high selectivity towards nitrogen in constructed wetlands. Environmental Pollution, 2021, 289, 117812. | 3.7 | 13 |
| 278 | Effects and mechanisms of modified biochars on microbial iron reduction of Geobacter sulfurreducens. Chemosphere, 2021, 283, 130983. | 4.2 | 20 |
| 279 | The conductivity and redox properties of pyrolyzed carbon mediate methanogenesis in paddy soils with ethanol as substrate. Science of the Total Environment, 2021, 795, 148906. | 3.9 | 10 |
| 280 | Electrochemical behaviors of biochar materials during pollutant removal in wastewater: A review. Chemical Engineering Journal, 2021, 425, 130585. | 6.6 | 26 |
| 281 | Stimulation of pyrolytic carbon materials as electron shuttles on the anaerobic transformation of recalcitrant organic pollutants: A review. Science of the Total Environment, 2021, 801, 149696. | 3.9 | 19 |
| 282 | Modification of hydrochar increased the capacity to promote anaerobic digestion. Bioresource Technology, 2021, 341, 125856. | 4.8 | 17 |
| 283 | Selective production of singlet oxygen from zinc-etching hierarchically porous biochar for sulfamethoxazole degradation. Environmental Pollution, 2021, 290, 117991. | 3.7 | 22 |
| 284 | The pH-sensitive sorption governed reduction of Cr(VI) by sludge derived biochar and the accelerating effect of organic acids. Journal of Hazardous Materials, 2022, 423, 127205. | 6.5 | 20 |
| 285 | Enhanced microbial reduction of aqueous hexavalent chromium by Shewanella oneidensis MR-1 with biochar as electron shuttle. Journal of Environmental Sciences, 2022, 113, 12-25. | 3.2 | 20 |
| 286 | Reactivity of chloroacetamides toward sulfideÂ+Âblack carbon: Insights from structural analogues and dynamic NMR spectroscopy. Science of the Total Environment, 2022, 803, 150064. | 3.9 | 3 |
| 287 | Biochar reduced extractable dieldrin concentrations and promoted oligotrophic growth including microbial degraders of chlorinated pollutants. Journal of Hazardous Materials, 2022, 423, 127156. | 6.5 | 5 |
| 288 | Biochar as a novel carbon-negative electron source and mediator: electron exchange capacity (EEC) and environmentally persistent free radicals (EPFRs): a review. Chemical Engineering Journal, 2022, 429, 132313. | 6.6 | 65 |
| 289 | Biochar-based bioretention systems for removal of chemical and microbial pollutants from stormwater: A critical review. Journal of Hazardous Materials, 2022, 422, 126886. | 6.5 | 55 |
| 290 | Biochar-based activation of peroxide: multivariate-controlled performance, modulatory surface reactive sites and tunable oxidative species. Chemical Engineering Journal, 2022, 428, 131233. | 6.6 | 37 |

| # | Article | IF | Citations |
|---|---|---|---|
| 291 | Assessment of GHG Emissions from Shale Gas Development. Springer Briefs in Geography, 2021, , 67-80. | 0.1 | 0 |
| 292 | Advances in Pyrolytic Technologies with Improved Carbon Capture and Storage to Combat Climate Change. , 2020, , 535-575. | | 4 |
| 293 | Mediation of rhodamine B photodegradation by biochar. Chemosphere, 2020, 256, 127082. | 4.2 | 31 |
| 294 | Reduced graphene oxide decorated with magnetite nanoparticles enhance biomethane enrichment. Journal of Hazardous Materials, 2020, 397, 122760. | 6.5 | 15 |
| 295 | Efficient oxidation and adsorption of As(III) and As(V) in water using a Fenton-like reagent, (ferrihydrite)-loaded biochar. Science of the Total Environment, 2020, 715, 136957. | 3.9 | 63 |
| 297 | A coupled function of biochar as geobattery and geoconductor leads to stimulation of microbial Fe(III) reduction and methanogenesis in a paddy soil enrichment culture. Soil Biology and Biochemistry, 2021, 163, 108446. | 4.2 | 19 |
| 298 | Biogeochemical Fluxes in Terrestrial Ecosystems. , 2019, , 529-577. | | 0 |
| 299 | Exploring the recycling of bioleaching functional bacteria and sulfur substrate using the sulfur-covered biochar particles. Environmental Sciences Europe, 2020, 32, . | 2.6 | 4 |
| 302 | Biochar-Supported TiO2-Based Nanocomposites for the Photocatalytic Degradation of Sulfamethoxazole in Waterâ€"A Review. Toxics, 2021, 9, 313. | 1.6 | 30 |
| 303 | Anaerobic ammonium oxidation coupled to Fe(III) reduction: Discovery, mechanism and application prospects in wastewater treatment. Science of the Total Environment, 2022, 818, 151687. | 3.9 | 25 |
| 304 | Effects of biochar/AQDS on As(III)-adsorbed ferrihydrite reduction and arsenic (As) and iron (Fe) transformation: Abiotic and biological conditions. Chemosphere, 2022, 291, 133126. | 4.2 | 10 |
| 305 | Effects of different feedstocks-based biochar on soil remediation: A review. Environmental Pollution, 2022, 294, 118655. | 3.7 | 116 |
| 306 | Does biochar application in heavy metal-contaminated soils affect soil micronutrient dynamics?. Chemosphere, 2022, 290, 133349. | 4.2 | 19 |
| 307 | Hydrochar-mediated photocatalyst Fe3O4/BiOBr@HC for highly efficient carbamazepine degradation under visible LED light irradiation. Chemical Engineering Journal, 2022, 433, 134492. | 6.6 | 29 |
| 308 | Formation and availability of methylmercury in mercury-contaminated sediment: effects of activated carbon and biochar amendments. Journal of Soils and Sediments, 2022, 22, 1041-1053. | 1.5 | 3 |
| 309 | Investigation on the potential of eco-friendly bio-char for amendment in serpentine soils and immobilization of heavy metals contaminants: a review. Biomass Conversion and Biorefinery, 0, , 1. | 2.9 | 3 |
| 310 | Mechanistic insights of removing pollutant in adsorption and advanced oxidation processes by sludge biochar. Journal of Hazardous Materials, 2022, 430, 128375. | 6.5 | 41 |
| 311 | Real wastewater micropollutant removal by wood waste biomass biochars: A mechanistic interpretation related to various biochar physico-chemical properties. Bioresource Technology Reports, 2022, 17, 100966. | 1.5 | 1 |

| # | Article | IF | Citations |
|---|---|---|---|
| 312 | Urea-based nitrogen fertilization in agriculture: a key source of N<sub>2</sub>O emissions and recent development in mitigating strategies. Archives of Agronomy and Soil Science, 2023, 69, 663-678. | 1.3 | 8 |
| 313 | Enhanced sequestration of molybdenum(VI) using composite constructed wetlands and responses of microbial communities. Water Science and Technology, 2022, 85, 1065-1078. | 1.2 | 5 |
| 314 | Efficient utilization of the electron energy of antibiotics to accelerate Fe(III)/Fe(II) cycle in heterogeneous Fenton reaction induced by bamboo biochar/schwertmannite. Environmental Research, 2022, 209, 112830. | 3.7 | 20 |
| 315 | Redox properties of nano-sized biochar derived from wheat straw biochar. RSC Advances, 2022, 12, 11039-11046. | 1.7 | 11 |
| 316 | The regenerative role of biofilm in the removal of pesticides from stormwater in biochar-amended biofilters. Environmental Science: Water Research and Technology, 2022, 8, 1092-1110. | 1.2 | 5 |
| 317 | Biochar-Mediated Degradation of Roxarsone by Shewanella oneidensis MR-1. Frontiers in Microbiology, 2022, 13, 846228. | 1.5 | 2 |
| 318 | Biochar enhances partial denitrification/anammox by sustaining high rates of nitrate to nitrite reduction. Bioresource Technology, 2022, 349, 126869. | 4.8 | 19 |
| 319 | Decrypting the synergistic action of the Fenton process and biochar addition for sustainable remediation of real technogenic soil from PAHs and heavy metals. Environmental Pollution, 2022, 303, 119096. | 3.7 | 11 |
| 320 | Sludge-derived biochar toward sustainable Peroxymonosulfate Activation: Regulation of active sites and synergistic production of reaction oxygen species. Chemical Engineering Journal, 2022, 440, 135897. | 6.6 | 30 |
| 321 | Nitrogen Removal by an Anaerobic Iron-Dependent Ammonium Oxidation (Feammox) Enrichment: Potential for Wastewater Treatment. Water (Switzerland), 2021, 13, 3462. | 1.2 | 11 |
| 322 | Enhanced Microbial Ferrihydrite Reduction by Pyrogenic Carbon: Impact of Graphitic Structures. Environmental Science & Technology, 2022, 56, 239-250. | 4.6 | 31 |
| 323 | Tertiary treatment of municipal wastewater by a novel flow constructed wetland integrated with biochar and zero-valent iron. Journal of Water Process Engineering, 2022, 47, 102777. | 2.6 | 10 |
| 327 | Nano-biochar modulates the formation of iron plaque through facilitating iron-involved redox reactions on aquatic plant root surfaces. Environmental Science: Nano, 2022, 9, 1974-1985. | 2.2 | 4 |
| 328 | High molecular weight fractions of dissolved organic matter (DOM) determined the adsorption and electron transfer capacity of DOM on iron minerals. Chemical Geology, 2022, 604, 120907. | 1.4 | 18 |
| 329 | Biochar decreases Cd mobility and rice (Oryza sativa L.) uptake by affecting soil iron and sulfur cycling. Science of the Total Environment, 2022, 836, 155547. | 3.9 | 14 |
| 330 | Combined remediation effects of biochar, zeolite and humus on Cd-contaminated weakly alkaline soils in wheat farmland. Chemosphere, 2022, 302, 134851. | 4.2 | 9 |
| 331 | The remediation potential of biochar derived from different biomass for typical pollution in agricultural soil. , 2022, , 71-83. | | 1 |
| 332 | Effect of root exudates on the release, surface property, colloidal stability, and phytotoxicity of dissolved black carbon. Ecotoxicology and Environmental Safety, 2022, 239, 113687. | 2.9 | 2 |

| # | Article | IF | Citations |
|---|---|---|---|
| 333 | Persistent Free Radicals on Carbon Nanotubes and Their Catalytic Effect on Benzoyl Peroxide Decomposition. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 335 | Preparation of biochar based on grapefruit peel and magnetite decorated with cadmium sulfide nanoparticles for photocatalytic degradation of chlorpyrifos. Diamond and Related Materials, 2022, 126, 109130. | 1.8 | 11 |
| 336 | Evaluating Effectiveness of Electron Shuttles in Environments with a WO<sub>3</sub> Nanoprobe. Environmental Science: Nano, 0, , . | 2.2 | 1 |
| 337 | Electron shuttle potential of biochar promotes dissimilatory nitrate reduction to ammonium in paddy soil. Soil Biology and Biochemistry, 2022, 172, 108760. | 4.2 | 16 |
| 338 | A novel way for hydroxyl radicals generation: Biochar-supported zero-valent iron composite activates oxygen to generate hydroxyl radicals. Journal of Environmental Chemical Engineering, 2022, 10, 108132. | 3.3 | 6 |
| 339 | Enhanced Cr(Vi) Bioreduction by Biochar: Insight into the Persistent Free Radicals Mediated Extracellular Electron Transfer. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 340 | Mitigation of GHG Emissions from Soils Fertilized with Livestock Chain Residues. Agronomy, 2022, 12, 1593. | 1.3 | 1 |
| 341 | Stability and interaction of biochar and iron Âmineral nanoparticles: effect of pH, ionic strength, and dissolved organic matter. Biochar, 2022, 4, . | 6.2 | 5 |
| 342 | Biochar facilitated bacterial reduction of Cr(VI) by Shewanella Putrefaciens CN32: Pathways and surface characteristics. Environmental Research, 2022, 214, 113971. | 3.7 | 9 |
| 343 | Biochar facilitates ferrihydrite reduction by Shewanella oneidensis MR-1 through stimulating the secretion of extracellular polymeric substances. Science of the Total Environment, 2022, 848, 157560. | 3.9 | 13 |
| 344 | Development of multifarious carrier materials and impact conditions of immobilised microbial technology for environmental remediation: A review. Environmental Pollution, 2022, 314, 120232. | 3.7 | 24 |
| 345 | Biochar-mediated abiotic and biotic degradation of halogenated organic contaminants â€“ A review. Science of the Total Environment, 2022, 852, 158381. | 3.9 | 19 |
| 346 | Generalists and specialists decomposing labile and aromatic biochar compounds and sequestering carbon in soil. Geoderma, 2022, 428, 116176. | 2.3 | 9 |
| 347 | Persistent free radicals on carbon nanotubes and their catalytic effect on benzoyl peroxide decomposition. Carbon, 2023, 201, 473-482. | 5.4 | 3 |
| 348 | Enhanced Cr(VI) bioreduction by biochar: Insight into the persistent free radicals mediated extracellular electron transfer. Journal of Hazardous Materials, 2023, 442, 129927. | 6.5 | 13 |
| 349 | Biochar combined with organic and inorganic fertilizers promoted the rapeseed nutrient uptake and improved the purple soil quality. Frontiers in Nutrition, 0, 9, . | 1.6 | 9 |
| 350 | Application of biochar on soil bioelectrochemical remediation: behind roles, progress, and potential. Critical Reviews in Biotechnology, 2024, 44, 120-138. | 5.1 | 5 |
| 351 | Spectral Detection of Nanophase Iron Minerals Produced by Fe(III)-Reducing Hyperthermophilic Crenarchaea. Astrobiology, 2023, 23, 43-59. | 1.5 | 3 |

| # | Article | IF | Citations |
|---|---|---|---|
| 352 | Arsenic release from arsenopyrite weathering in acid mine drainage: Kinetics, transformation, and effect of biochar. Environment International, 2022, 170, 107558. | 4.8 | 5 |
| 353 | Effects of biochar on anaerobic treatment systems: Some perspectives. Bioresource Technology, 2023, 367, 128226. | 4.8 | 11 |
| 354 | Minerals: A missing role for enhanced biochar carbon sequestration from the thermal conversion of biomass to the application in soil. Earth-Science Reviews, 2022, 234, 104215. | 4.0 | 10 |
| 355 | Electron-pool promotes interfacial electron transfer efficiency between pyrogenic carbon and anodic microbes. Bioresource Technology, 2022, 366, 128177. | 4.8 | 3 |
| 357 | Effects of Biochar on the C Use Efficiency of Soil Microbial Communities: Components and Mechanisms. Environments - MDPI, 2022, 9, 138. | 1.5 | 5 |
| 358 | A Review on Chemoselective Reduction of Nitroarenes for Wastewater Remediation Using Biochar Supported Metal Catalysts: Kinetic and Mechanistic Studies. Chemistry Africa, 2023, 6, 561-578. | 1.2 | 5 |
| 359 | Conversion of novel tannery sludge-derived biochar/TiO2 nanocomposite for efficient removal of Cr (VI) under UV light: photocatalytic performance and mechanism insight. Environmental Science and Pollution Research, 0, , . | 2.7 | 5 |
| 360 | The Suppressive Effects of Biochar on Above- and Belowground Plant Pathogens and Pests: A Review. Plants, 2022, 11, 3144. | 1.6 | 11 |
| 361 | New insight and enhancement mechanisms for Feammox process by electron shuttles in wastewater treatment â€" A systematic review. Bioresource Technology, 2023, 369, 128495. | 4.8 | 15 |
| 362 | Intensified atrazine removal in a novel biochar coupled electrolysis-integrated bioretention system. Science of the Total Environment, 2023, 863, 161006. | 3.9 | 4 |
| 363 | Biochar-Assisted Bioengineered Strategies for Metal Removal: Mechanisms, Key Considerations, and Perspectives for the Treatment of Solid and Liquid Matrixes. Sustainability, 2022, 14, 17049. | 1.6 | 3 |
| 364 | Insight into the Photodegradation of Microplastics Boosted by Iron (Hydr)oxides. Environmental Science & Technology, 2022, 56, 17785-17794. | 4.6 | 17 |
| 365 | Co-digestion of food waste and hydrothermal liquid digestate: Promotion effect of self-generated hydrochars. Environmental Science and Ecotechnology, 2023, 15, 100239. | 6.7 | 7 |
| 366 | Biochar-derived dissolved black carbon accelerates ferrihydrite microbial transformation and subsequent imidacloprid degradation. Journal of Hazardous Materials, 2023, 446, 130685. | 6.5 | 10 |
| 367 | Application and mechanism of Fenton-like iron-based functional materials for arsenite removal. Transactions of Nonferrous Metals Society of China, 2022, 32, 4139-4155. | 1.7 | 1 |
| 368 | Microbial reduction and alteration of Fe(III)-containing smectites in the presence of biochar-derived dissolved organic matter. Applied Geochemistry, 2023, 152, 105661. | 1.4 | 1 |
| 369 | Sub-inhibitory concentrations of ampicillin affect microbial Fe(III) oxide reduction. Journal of Hazardous Materials, 2023, 451, 131131. | 6.5 | 2 |
| 370 | Carbon-doped Co3O4-MgO catalyzed peroxymonosulfate activation via an enhanced Co(III)/Co(II) cycle for rapid chloramphenicol degradation. Chemical Engineering Journal, 2023, 461, 142115. | 6.6 | 8 |

| # | Article | IF | Citations |
|---|---|---|---|
| 371 | The mechanism of p-nitrophenol degradation by dissolved organic matter derived from biochar. Science of the Total Environment, 2023, 868, 161693. | 3.9 | 2 |
| 372 | Resource recovery from textile wastewater: Dye, salt, and water regeneration using solar-driven interfacial evaporation. Journal of Cleaner Production, 2023, 391, 136148. | 4.6 | 10 |
| 373 | Nanoâ€biochar: Properties and prospects for sustainable agriculture. Land Degradation and Development, 2023, 34, 2445-2463. | 1.8 | 10 |
| 374 | Microbial reduction of Fe(III) in nontronite: Role of biochar as a redox mediator. Geochimica Et Cosmochimica Acta, 2023, 345, 102-116. | 1.6 | 17 |
| 375 | A review on influence of biochar amendment on soil processes and environmental remediation. Biotechnology and Genetic Engineering Reviews, 0, , 1-35. | 2.4 | 4 |
| 376 | Multiple roles of released <i>c</i> â€type cytochromes in tuning electron transport and physiological status of <i>Geobacter sulfurreducens</i>. Biotechnology and Bioengineering, 2023, 120, 1346-1356. | 1.7 | 0 |
| 377 | Efficient reduction and adsorption of Cr(VI) using FeCl3-modified biochar: Synergistic roles of persistent free radicals and Fe(II). Journal of Environmental Sciences, 2024, 137, 626-638. | 3.2 | 13 |
| 378 | From Fenton and ORR 2eâˆ'-Type Catalysts to Bifunctional Electrodes for Environmental Remediation Using the Electro-Fenton Process. Catalysts, 2023, 13, 674. | 1.6 | 4 |
| 379 | Biochar-derived dissolved organic matter (BDOM) and its influence on soil microbial community composition, function, and activity: A review. Critical Reviews in Environmental Science and Technology, 2023, 53, 1912-1934. | 6.6 | 3 |
| 380 | Charging-discharging cycles of geobattery activated carbon enhance iron reduction and vivianite recovery from wastewater. Science of the Total Environment, 2023, 882, 163541. | 3.9 | 0 |
| 381 | Conductive black carbon promoted biotransformation of undissolved 2, 2â€²-dinitrobiphenyl by mediating electron transfer. Science of the Total Environment, 2023, 882, 163619. | 3.9 | 0 |
| 382 | Experimental Study on Preparation of BC@MNZVI and Passivation of As in Soil. Hans Journal of Soil Science, 2023, 11, 48-60. | 0.0 | 0 |
| 405 | Coupled iron cycling and organic matter transformation across redox interfaces. Nature Reviews Earth & Environment, 2023, 4, 659-673. | 12.2 | 27 |
| 412 | New Trends in Biocharâ€"Mineral Composites. Materials Horizons, 2023, , 169-184. | 0.3 | 0 |