Pei C Chiu

List of Publications by Year
in descending order

40 papers	1,839 citations	361413 20 h-index	289244 40 g-index
41 all docs	41 docs citations	41 times ranked	1995 citing authors

#	Article	IF	Citations
1	Wood-Derived Black Carbon (Biochar) as a Microbial Electron Donor and Acceptor. Environmental Science and Technology Letters, 2016, 3, 62-66.	8.7	261
2	Removal and Inactivation of Waterborne Viruses Using Zerovalent Iron. Environmental Science & Technology, 2005, 39, 9263-9269.	10.0	190
3	Phosphorus release behaviors of poultry litter biochar as a soil amendment. Science of the Total Environment, 2015, 512-513, 454-463.	8.0	139
4	Biocharâ€mediated reductive transformation of nitro herbicides and explosives. Environmental Toxicology and Chemistry, 2013, 32, 501-508.	4.3	120
5	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.	11.3	114
6	Graphite-Mediated Reduction of 2,4-Dinitrotoluene with Elemental Iron. Environmental Science & Technology, 2002, 36, 2178-2184.	10.0	108
7	Nutrient release and ammonium sorption by poultry litter and wood biochars in stormwater treatment. Science of the Total Environment, 2016, 553, 596-606.	8.0	97
8	Enhancing Fenton oxidation of TNT and RDX through pretreatment with zero-valent iron. Water Research, 2003, 37, 4275-4283.	11.3	96
9	Graphite- and Soot-Mediated Reduction of 2,4-Dinitrotoluene and Hexahydro-1,3,5-trinitro-1,3,5-triazine. Environmental Science & Technology, 2009, 43, 6983-6988.	10.0	81
10	Zero-Valent Iron Pretreatment for Enhancing the Biodegradability of Azo Dyes. Water Environment Research, 2002, 74, 221-225.	2.7	77
11	2-Bromoethanesulfonate Affects Bacteria in a Trichloroethene-Dechlorinating Culture. Applied and Environmental Microbiology, 2001, 67, 2371-2374.	3.1	53
12	Effect of Pyrolysis Temperature on Acidic Oxygen-Containing Functional Groups and Electron Storage Capacities of Pyrolyzed Hydrochars. ACS Sustainable Chemistry and Engineering, 2019, 7, 8387-8396.	6.7	47
13	New methods for assessing electron storage capacity and redox reversibility of biochar. Chemosphere, 2019, 215, 827-834.	8.2	45
14	Reduction of Nitroglycerin with Elemental Iron:Â Pathway, Kinetics, and Mechanisms. Environmental Science & Technology, 2004, 38, 3723-3730.	10.0	41
15	REDUCTIVE TRANSFORMATION OF HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE, OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE, AND METHYLENEDINITRAMINE WITH ELEMENTAL IRON. Environmental Toxicology and Chemistry, 2005, 24, 2812.	4.3	36
16	A method to calculate the oneâ€electron reduction potentials for nitroaromatic compounds based on gasâ€phase quantum mechanics. Journal of Computational Chemistry, 2011, 32, 226-239.	3.3	35
17	Effect of adsorption to elemental iron on the transformation of 2,4,6â€trinitrotoluene and hexahydroâ€1,3,5â€trinitroâ€1,3,5â€triazine in solution. Environmental Toxicology and Chemistry, 2002, 21, 1384-1389.	4.3	31
18	Transport of Atomic Hydrogen through Graphite and Its Reaction with Azoaromatic Compounds. Environmental Science & Technology, 2006, 40, 3959-3964.	10.0	26

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19	Black carbon-mediated reductive transformation of nitro compounds by hydrogen sulfide. Environmental Earth Sciences, 2015, 73, 1813-1822.	2.7	25
20	Reduction of 3-Nitro-1,2,4-Triazol-5-One (NTO) by the Hematiteâ€"Aqueous Fe(II) Redox Couple. Environmental Science & Technology, 2020, 54, 12191-12201.	10.0	25
21	Black Carbon-Mediated Reduction of 2,4-Dinitrotoluene by Dithiothreitol. Journal of Environmental Quality, 2013, 42, 815-821.	2.0	20
22	Applications of Zero-Valent Iron (ZVI) and Nanoscale ZVI to Municipal and Decentralized Drinking Water Systemsâ€"A Review. ACS Symposium Series, 2013, , 237-249.	0.5	19
23	Pyrolysis Creates Electron Storage Capacity of Black Carbon (Biochar) from Lignocellulosic Biomass. ACS Sustainable Chemistry and Engineering, 2021, 9, 6821-6831.	6.7	19
24	Experimental Validation of Hydrogen Atom Transfer Gibbs Free Energy as a Predictor of Nitroaromatic Reduction Rate Constants. Environmental Science & Technology, 2019, 53, 5816-5827.	10.0	17
25	Biological Reduction of Trichloroethene Supported by Fe(0). Bioremediation Journal, 1998, 2, 175-181.	2.0	15
26	Zerovalent iron-sand filtration can reduce the concentration of multiple antimicrobials in conventionally treated reclaimed water. Environmental Research, 2019, 172, 301-309.	7.5	14
27	Zero-valent iron sand filtration reduces concentrations of virus-like particles and modifies virome community composition in reclaimed water used for agricultural irrigation. BMC Research Notes, 2019, 12, 223.	1.4	13
28	Visualizing electron storage capacity distribution in biochar through silver tagging. Chemosphere, 2020, 248, 125952.	8.2	10
29	Removal of munition constituents in stormwater runoff: Screening of native and cationized cellulosic sorbents for removal of insensitive munition constituents NTO, DNAN, and NQ, and legacy munition constituents HMX, RDX, TNT, and perchlorate.. Journal of Hazardous Materials, 2022, 424, 127335.	12.4	9
30	Chemical methods for determining the electron storage capacity of black carbon. MethodsX, 2018, 5, 1515-1520.	1.6	8
31	Reduction Rate Constants for Nitroaromatic Compounds Estimated from Adiabatic Electron Affinities. Environmental Science & Technology, 2010, 44, 7431-7436.	10.0	7
32	Reductive Transformation of 3-Nitro-1,2,4-triazol-5-one (NTO) by Leonardite Humic Acid and Anthraquinone-2,6-disulfonate (AQDS). Environmental Science & Technology, 2021, 55, 12973-12983.	10.0	7
33	Zero-Valent Iron Filtration Reduces Microbial Contaminants in Irrigation Water and Transfer to Raw Agricultural Commodities. Microorganisms, 2021, 9, 2009.	3.6	7
34	Escherichia coli Reduction in Water by Zero-Valent Ironâ€"Sand Filtration Is Based on Water Quality Parameters. Water (Switzerland), 2021, 13, 2702.	2.7	7
35	Hydrogen Atom Transfer Reaction Free Energy as a Predictor of Abiotic Nitroaromatic Reduction Rate Constants: A Comprehensive Analysis. Environmental Toxicology and Chemistry, 2020, 39, 1678-1684.	4.3	4
36	A Synergistic Nanoâ€Zerovalent Ironâ€Hydrogen Peroxide Technology for Insensitive Munitions Wastewater Treatment. Propellants, Explosives, Pyrotechnics, 2022, 47, .	1.6	4

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37	A Unified Linear Free Energy Relationship for Abiotic Reduction Rate of Nitroaromatics and Hydroquinones Using Quantum Chemically Estimated Energies. Environmental Toxicology and Chemistry, 2020, 39, 2389-2395.	4.3	3
38	Abiotic reduction of 3-nitro-1,2,4-triazol-5-one (NTO) and other munitions constituents by wood-derived biochar through its rechargeable electron storage capacity. Environmental Sciences: Processes and Impacts, 2022, , .	3.5	3
39	Modeling the Reduction Kinetics of Munition Compounds by Humic Acids. Environmental Science & Technology, 2022, 56, 4926-4935.	10.0	3
40	Visualizing the distribution of black carbon's electron storage capacity using silver. MethodsX, 2020, 7, 100838.	1.6	2