Huichun Zhang

List of Publications by Citations

76 papers	2,196 citations	23 h-index	45 g-index
80 ext. papers	2,981 ext. citations	9.7 avg, IF	5.95 L-index

#	Paper	IF	Citations
76	Oxidative transformation of triclosan and chlorophene by manganese oxides. *Environmental Science & Technology*, **2003**, 37, 2421-30	10.3	290
75	Oxidative transformation of fluoroquinolone antibacterial agents and structurally related amines by manganese oxide. *Environmental Science & Technology*, **2005**, 39, 4474-83	10.3	244
74	Kinetic modeling of oxidation of antibacterial agents by manganese oxide. *Environmental Science & Technology*, **2008**, 42, 5548-54	10.3	152
73	Adsorption and oxidation of fluoroquinolone antibacterial agents and structurally related amines with goethite. *Chemosphere*, **2007**, 66, 1502-12	8.4	128
72	Effect of MnO Phase Structure on the Oxidative Reactivity toward Bisphenol A Degradation. *Environmental Science & Technology*, **2018**, 52, 11309-11318	10.3	107
71	Effects of MnO2 of different structures on activation of peroxymonosulfate for bisphenol A degradation under acidic conditions. *Chemical Engineering Journal*, **2019**, 370, 906-915	14.7	98
70	Mn-based catalysts for sulfate radical-based advanced oxidation processes: A review. *Environment International*, **2019**, 133, 105141	12.9	94
69	Direct Electron-Transfer-Based Peroxymonosulfate Activation by Iron-Doped Manganese Oxide ([illegible]MnO) and the Development of Galvanic Oxidation Processes (GOPs). *Environmental Science & Technology*, **2019**, 53, 12610-12620	10.3	82
68	Reactivity and transformation of antibacterial N-oxides in the presence of manganese oxide. *Environmental Science & Technology*, **2005**, 39, 593-601	10.3	70
67	Contamination of Phthalate Esters in Vegetable Agriculture and Human Cumulative Risk Assessment. *Pedosphere*, **2017**, 27, 439-451	5	50
66	Predicting Aqueous Adsorption of Organic Compounds onto Biochars, Carbon Nanotubes, Granular Activated Carbons, and Resins with Machine Learning. *Environmental Science & Technology*, **2020**, 54, 7008-7018	10.3	42
65	Spectroscopic Investigation of Interfacial Interaction of Manganese Oxide with Triclosan, Aniline, and Phenol. *Environmental Science & Technology*, **2016**, 50, 10978-10987	10.3	42
64	Development of palladium-resin composites for catalytic hydrodechlorination of 4-chlorophenol. *Applied Catalysis B: Environmental*, **2017**, 205, 576-586	21.8	40
63	Elucidating the role of electron shuttles in reductive transformations in anaerobic sediments. *Environmental Science & Technology*, **2009**, 43, 1042-8	10.3	37
62	Fe(II) Redox Chemistry in the Environment. *Chemical Reviews*, **2021**, 121, 8161-8233	68.1	37
61	Reaction mechanism and kinetic modeling of DEET degradation by flow-through anodic fenton treatment (FAFT). *Environmental Science & Technology*, **2006**, 40, 4488-94	10.3	34
60	Interactions in Ternary Mixtures of MnO2, Al2O3, and Natural Organic Matter (NOM) and the Impact on MnO2 Oxidative Reactivity. *Environmental Science & Technology*, **2016**, 50, 2345-53	10.3	33

59	Highly sensitive electrochemical analysis of tunnel structured MnO2 nanoparticle-based sensors on the oxidation of nitrite. *Sensors and Actuators B: Chemical*, **2019**, 281, 746-750	8.5	33
58	Degradation of methyl tertiary-butyl ether (MTBE) by anodic Fenton treatment. *Journal of Hazardous Materials*, **2007**, 144, 29-40	12.8	32
57	A deep neural network combined with molecular fingerprints (DNN-MF) to develop predictive models for hydroxyl radical rate constants of water contaminants. *Journal of Hazardous Materials*, **2020**, 383, 121141	12.8	32
56	Impact of interactions between metal oxides to oxidative reactivity of manganese dioxide. *Environmental Science & Technology*, **2012**, 46, 2764-71	10.3	28
55	Machine Learning: New Ideas and Tools in Environmental Science and Engineering. *Environmental Science & Technology*, **2021**, 55, 12741-12754	10.3	26
54	Catalytic reduction of 4-nitrophenol by palladium-resin composites. *Applied Catalysis A: General*, **2017**, 543, 209-217	5.1	24
53	Identifying indicators of reactivity for chemical reductants in sediments. *Environmental Science & Technology*, **2013**, 47, 6959-68	10.3	23
52	Interaction Mechanisms and Predictive Model for the Sorption of Aromatic Compounds onto Nonionic Resins. *Journal of Physical Chemistry C*, **2013**, 117, 17707-17715	3.8	23
51	A modified Polanyi-based model for mechanistic understanding of adsorption of phenolic compounds onto polymeric adsorbents. *Environmental Science & Technology*, **2012**, 46, 6806-14	10.3	22
50	Spatial heterogeneity modeling of water quality based on random forest regression and model interpretation. *Environmental Research*, **2021**, 202, 111660	7.9	21
49	Understanding and modeling removal of anionic organic contaminants (AOCs) by anion exchange resins. *Environmental Science & Technology*, **2014**, 48, 7494-502	10.3	20
48	Effects of NOM on oxidative reactivity of manganese dioxide in binary oxide mixtures with goethite or hematite. *Langmuir*, **2015**, 31, 2790-9	4	20
47	An improved weighted index for the assessment of heavy metal pollution in soils in Zhejiang, China. *Environmental Research*, **2021**, 192, 110246	7.9	20
46	New insight into the reactivity of Mn(III) in bisulfite/permanganate for organic compounds oxidation: The catalytic role of bisulfite and oxygen. *Water Research*, **2019**, 148, 198-207	12.5	17
45	Shedding light on Black Box machine learning models for predicting the reactivity of HO radicals toward organic compounds. *Chemical Engineering Journal*, **2021**, 405, 126627	14.7	17
44	Redox reactions of iron and manganese oxides in complex systems. *Frontiers of Environmental Science and Engineering*, **2020**, 14, 1	5.8	16
43	Molecular image-convolutional neural network (CNN) assisted QSAR models for predicting contaminant reactivity toward OH radicals: Transfer learning, data augmentation and model interpretation. *Chemical Engineering Journal*, **2021**, 408, 127998	14.7	16
42	Roles of oxygen and Mn (IV) oxide in abiotic formation of humic substances by oxidative polymerization of polyphenol and amino acid. *Chemical Engineering Journal*, **2020**, 393, 124734	14.7	15

41	Stability of hydrous ferric oxide nanoparticles encapsulated inside porous matrices: Effect of solution and matrix phase. *Chemical Engineering Journal*, **2018**, 347, 870-876	14.7	15
40	A generalized predictive model for TiO-Catalyzed photo-degradation rate constants of water contaminants through artificial neural network. *Environmental Research*, **2020**, 187, 109697	7.9	11
39	Complexation facilitated reduction of aromatic N-oxides by aqueous Fe(II)-tiron complex: reaction kinetics and mechanisms. *Environmental Science & Technology*, **2013**, 47, 11023-31	10.3	11
38	Evaluation of the performance of flow-through anodic fenton treatment in amide compound degradation. *Journal of Agricultural and Food Chemistry*, **2007**, 55, 4073-9	5.7	11
37	Ecological risk potential assessment of heavy metal contaminated soils in Ophiolitic formations. *Environmental Research*, **2021**, 192, 110305	7.9	11
36	Experimental and Computational Evidence for the Reduction Mechanisms of Aromatic N-oxides by Aqueous Fe(II)-Tiron Complex. *Environmental Science & Technology*, **2016**, 50, 249-58	10.3	10
35	Reconstruction of adsorption potential in Polanyi-based models and application to various adsorbents. *Environmental Science & Technology*, **2014**, 48, 6772-9	10.3	10
34	Sorption mechanism and predictive models for removal of cationic organic contaminants by cation exchange resins. *Environmental Science & Technology*, **2014**, 48, 14572-81	10.3	10
33	Mn(III)-ligand complexes as a catalyst in ligand-assisted oxidation of substituted phenols by permanganate in aqueous solution. *Journal of Hazardous Materials*, **2020**, 384, 121401	12.8	10
32	Predicting Heavy Metal Adsorption on Soil with Machine Learning and Mapping Global Distribution of Soil Adsorption Capacities. *Environmental Science & Technology*, **2021**, 55, 14316-14328	10.3	8
31	Quantitative structure activity relationships (QSARs) and machine learning models for abiotic reduction of organic compounds by an aqueous Fe(II) complex. *Water Research*, **2021**, 192, 116843	12.5	8
30	Determining and forecasting drought susceptibility in southwestern Iran using multi-criteria decision-making (MCDM) coupled with CA-Markov model. *Science of the Total Environment*, **2021**, 781, 146703	10.2	8
29	Oxidant or catalyst for oxidation? The role of manganese oxides in the activation of peroxymonosulfate (PMS). *Frontiers of Environmental Science and Engineering*, **2019**, 13, 1	5.8	7
28	Surveying Manganese Oxides as Electrode Materials for Harnessing Salinity Gradient Energy. *Environmental Science & Technology*, **2020**, 54, 5746-5754	10.3	7
27	Reduction of nitrogen-oxygen containing compounds (NOCs) by surface-associated Fe(II) and comparison with soluble Fe(II) complexes. *Chemical Engineering Journal*, **2019**, 370, 782-791	14.7	6
26	Effects of Second Metal Oxides on Surface-Mediated Reduction of Contaminants by Fe(II) with Iron Oxide. *ACS Earth and Space Chemistry*, **2019**, 3, 680-687	3.2	6
25	Highly Efficient Bromide Removal from Shale Gas Produced Water by Unactivated Peroxymonosulfate for Controlling Disinfection Byproduct Formation in Impacted Water Supplies. *Environmental Science & Technology*, **2020**, 54, 5186-5196	10.3	6
24	Reduction of isoxazoles including sulfamethoxazole by aqueous FeIItiron complex: Impact of structures. *Chemical Engineering Journal*, **2018**, 352, 501-509	14.7	6

23	Significant Effect of Evaporation Process on the Reaction of Sulfamethoxazole with Manganese Oxide. *Environmental Science & Technology*, **2020**, 54, 4856-4864	10.3	5
22	Galvanic oxidation processes (GOPs): An effective direct electron transfer approach for organic contaminant oxidation. *Science of the Total Environment*, **2020**, 743, 140828	10.2	5
21	Dissolution, Adsorption, and Redox Reaction in Ternary Mixtures of Goethite, Aluminum Oxides, and Hydroquinone. *Journal of Physical Chemistry C*, **2019**, 123, 4371-4379	3.8	4
20	Interactions and Reductive Reactivity in Ternary Mixtures of Fe(II), Goethite, and Phthalic Acid Based on a Combined Experimental and Modeling Approach. *Langmuir*, **2019**, 35, 8220-8227	4	4
19	Coupling a Feedforward Network (FN) Model to Real Adsorbed Solution Theory (RAST) to Improve Prediction of Bisolute Adsorption on Resins. *Environmental Science & Technology*, **2020**, 54, 15385-15394	10.3	4
18	System Dynamics-Multiple Objective Optimization Model for Water Resource Management: A Case Study in Jiaxing City, China. *Water (Switzerland)*, **2021**, 13, 671	3	4
17	Evolution of humic substances in polymerization of polyphenol and amino acid based on non-destructive characterization. *Frontiers of Environmental Science and Engineering*, **2021**, 15, 1	5.8	4
16	Reaction of bisphenol A with synthetic and commercial MnO: spectroscopic and kinetic study. *Environmental Sciences: Processes and Impacts*, **2018**, 20, 1046-1055	4.3	4
15	Modeling Bisolute Adsorption of Aromatic Compounds Based on Adsorbed Solution Theories. *Environmental Science & Technology*, **2017**, 51, 5552-5562	10.3	3
14	Machine Learning-Assisted QSAR Models on Contaminant Reactivity Toward Four Oxidants: Combining Small Data Sets and Knowledge Transfer.. *Environmental Science & Technology*, **2021**,	10.3	2
13	Predicting non-carcinogenic hazard quotients of heavy metals in pepper (Capsicum annum L.) utilizing electromagnetic waves. *Frontiers of Environmental Science and Engineering*, **2020**, 14, 1	5.8	2
12	The Use of Chemical Probes for the Characterization of the Predominant Abiotic Reductants in Anaerobic Sediments. *ACS Symposium Series*, **2011**, 539-557	0.4	1
11	Hydrolysis kinetics of phenylsulfonyl-cycloalkane carboxylates. *Chemosphere*, **1995**, 31, 3425-3431	8.4	1
10	Coupling-promoted oxidative degradation of organic micropollutants by iron oxychloride (FeOCl) with dual active sites. *Chemical Engineering Journal Advances*, **2022**, 9, 100214	3.6	1
9	A comprehensive kinetic model for phenol oxidation in seven advanced oxidation processes and considering the effects of halides and carbonate.. *Water Research X*, **2022**, 14, 100129	8.1	1
8	Investigation of water quality and its spatial distribution in the Kor River basin, Fars province, Iran. *Environmental Research*, **2022**, 204, 112294	7.9	1
7	Enhancement of nitrogen and phosphorus removal, sludge reduction and microbial community structure in an anaerobic/anoxic/oxic process coupled with composite ferrate solution disintegration. *Environmental Research*, **2020**, 190, 110006	7.9	1
6	Evaluating the environmental impact of selected chemical de-icers. *Transportation Safety and Environment*, **2019**, 1, 220-229	2.6	1

5	A Novel Machine Learning Model to Predict the Photo-Degradation Performance of Different Photocatalysts on a Variety of Water Contaminants. *Catalysts*, **2021**, 11, 1107	4	1
4	Enhanced dewaterability of waste activated sludge by UV assisted ZVI-PDS oxidation.. *Journal of Environmental Sciences*, **2022**, 113, 152-164	6.4	1
3	ab initio study of Mn-based systems for oxidative degradation. *Chemosphere*, **2021**, 291, 132706	8.4	0
2	Is the traditional alkali extraction method valid in isolating chemically distinct humic acid?. *Chemical Engineering Journal Advances*, **2021**, 6, 100077	3.6	0
1	Response to Comment on Predicting Aqueous Adsorption of Organic Compounds onto Biochars, Carbon Nanotubes, Granular Activated Carbons, And Resins with Machine Learning. *Environmental Science & Technology*, **2020**, 54, 11638-11639	10.3	