

Investigation of disinfection byproducts formation in Fe²⁺ and its model compounds followed by chlorination

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Effect of pH on the formation of disinfection byproducts in ferrate(VI) pre-oxidation and subsequent chlorination. Separation and Purification Technology, 2015, 156, 980-986.	3.9	33
2	Characterization of Particles from Ferrate Preoxidation. Environmental Science & Technology, 2015, 49, 4955-4962.	4.6	100
3	Oxidative degradation of triazine- and sulfonyleurea-based herbicides using Fe(VI): The case study of atrazine and iodosulfuron with kinetics and degradation products. Separation and Purification Technology, 2015, 156, 1041-1046.	3.9	37
4	Effect of Metal Ions on the Formation of Trichloronitromethane during Chlorination of Catechol and Nitrite. Journal of Environmental Quality, 2016, 45, 1933-1940.	1.0	4
5	Ferrate(VI) a Greener Solution: Synthesis, Characterization, and Multifunctional Use in Treating Metal-Complexed Species in Aqueous Solution. ACS Symposium Series, 2016, , 161-220.	0.5	4
6	Review on the Stability of Ferrate (VI) Species in Aqueous Medium and Oxidation of Pharmaceuticals and Personal Care Products (PPCPs) by Ferrate (VI): Identification of Transformation By-Products. ACS Symposium Series, 2016, , 287-335.	0.5	3
7	Comparison of the Effects of Ferrate, Ozone, and Permanganate Pre-Oxidation on Disinfection Byproduct Formation from Chlorination. ACS Symposium Series, 2016, , 421-437.	0.5	6
8	Use of Ferrate and Ferrites for Water Disinfection. ACS Symposium Series, 2016, , 145-159.	0.5	2
9	Impacts of ferrate oxidation on natural organic matter and disinfection byproduct precursors. Water Research, 2016, 96, 114-125.	5.3	78
10	Lessons learned from more than two decades of research on emerging contaminants in the environment. Journal of Hazardous Materials, 2016, 316, 242-251.	6.5	322
11	Degradation of fluoroquinolone antibiotics by ferrate(VI): Effects of water constituents and oxidized products. Water Research, 2016, 103, 48-57.	5.3	206
12	Emerging investigators series: disinfection by-products in mixed chlorine dioxide and chlorine water treatment. Environmental Science: Water Research and Technology, 2016, 2, 838-847.	1.2	20
13	Oxidation of manganese(II) with ferrate: Stoichiometry, kinetics, products and impact of organic carbon. Chemosphere, 2016, 159, 457-464.	4.2	51
14	Study on enhancement mechanism of NO absorption in K ₂ FeO ₄ solution basing on mass transfer-reaction theory. Chemical Engineering Research and Design, 2016, 111, 196-203.	2.7	21
15	Effect of oxidation on nitro-based pharmaceutical degradation and trichloronitromethane formation. Chemosphere, 2016, 146, 154-161.	4.2	7
16	Formation of iodinated trihalomethanes after ferrate pre-oxidation during chlorination and chloramination of iodide-containing water. Journal of the Taiwan Institute of Chemical Engineers, 2016, 60, 453-459.	2.7	20
17	Characteristics of disinfection by-products precursors removal from micro-polluted water by constructed wetlands. Ecological Engineering, 2016, 93, 262-268.	1.6	15
18	Ferrates(FeVI, FeV, and FeIV) oxidation of iodide: Formation of triiodide. Chemosphere, 2016, 144, 1156-1161.	4.2	27

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19	Review on High Valent Fe ^{VI} (Ferrate): A Sustainable Green Oxidant in Organic Chemistry and Transformation of Pharmaceuticals. ACS Sustainable Chemistry and Engineering, 2016, 4, 18-34.	3.2	214
20	Mitigation and degradation of natural organic matters (NOMs) during ferrate(VI) application for drinking water treatment. Chemosphere, 2016, 146, 145-153.	4.2	59
21	Ferrate(VI) as a greener oxidant: Electrochemical generation and treatment of phenol. Journal of Hazardous Materials, 2016, 319, 130-136.	6.5	68
22	Formation of known and unknown disinfection by-products from natural organic matter fractions during chlorination, chloramination, and ozonation. Science of the Total Environment, 2017, 587-588, 177-184.	3.9	71
23	Bacterial community structure and microorganism inactivation following water treatment with ferrate(VI) or chlorine. Environmental Chemistry Letters, 2017, 15, 525-530.	8.3	21
24	Effect of Nitrite on the Formation of Trichloronitromethane (TCNM) During Chlorination of Polyhydroxy-Phenols and Sugars. Water, Air, and Soil Pollution, 2017, 228, 1.	1.1	5
25	An overview on production and application of ferrate (VI) for chemical oxidation, coagulation and disinfection of water and wastewater. Journal of Environmental Chemical Engineering, 2017, 5, 1828-1842.	3.3	93
26	Iron based sustainable greener technologies to treat cyanobacteria and microcystin-LR in water. Water Science and Technology: Water Supply, 2017, 17, 107-114.	1.0	14
27	The disinfection and natural organic matter removal performance of electro-synthesized ferrate (VI). Journal of Water Process Engineering, 2017, 20, 84-89.	2.6	9
28	Chlorine decay and trihalomethane formation following ferrate(VI) preoxidation and chlorination of drinking water. Chemosphere, 2017, 187, 413-420.	4.2	8
29	Silica gel-enhanced oxidation of caffeine by ferrate(VI). Chemical Engineering Journal, 2017, 330, 987-994.	6.6	47
30	Influence on the generation of disinfection byproducts in a tannic acid solution by aluminum ions. Environmental Technology (United Kingdom), 2017, 38, 1100-1110.	1.2	4
31	Degradation of sulfonamides and formation of trihalomethanes by chlorination after pre-oxidation with Fe(VI). Journal of Environmental Sciences, 2018, 73, 89-95.	3.2	23
32	Oxidation of theophylline by Ferrate (VI) and formation of disinfection byproducts during subsequent chlorination. Separation and Purification Technology, 2018, 201, 283-290.	3.9	15
33	Performance of integrated ferrate-polyaluminum chloride coagulation as a treatment technology for removing freshwater humic substances. Journal of Environmental Management, 2018, 212, 323-331.	3.8	11
34	The combination of ferrate(VI) and sulfite as a novel advanced oxidation process for enhanced degradation of organic contaminants. Chemical Engineering Journal, 2018, 333, 11-19.	6.6	151
35	Electrochemical synthesis of ferrate(VI) using sponge iron anode and oxidative transformations of antibiotic and pesticide. Journal of Hazardous Materials, 2018, 344, 1155-1164.	6.5	38
36	Ferrate(VI) decomposition in water in the absence and presence of natural organic matter (NOM). Chemical Engineering Journal, 2018, 334, 2335-2342.	6.6	49

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37	Oxidation of iopamidol with ferrate (Fe(VI)): Kinetics and formation of toxic iodinated disinfection by-products. <i>Water Research</i> , 2018, 130, 200-207.	5.3	40
38	Kinetics and mechanism of diclofenac removal using ferrate(VI): roles of Fe ³⁺ , Fe ²⁺ , and Mn ²⁺ . <i>Environmental Science and Pollution Research</i> , 2018, 25, 22998-23008.	2.7	39
39	Acute renal toxicity of sodium chlorate: Redox imbalance, enhanced DNA damage, metabolic alterations and inhibition of brush border membrane enzymes in rats. <i>Environmental Toxicology</i> , 2018, 33, 1182-1194.	2.1	17
40	Ferrate(VI) oxidation of polychlorinated diphenyl sulfides: Kinetics, degradation, and oxidized products. <i>Water Research</i> , 2018, 143, 1-9.	5.3	81
41	Determination of phenol degradation in chloride ion rich water by ferrate using a chromatographic method in combination with on-line mass spectrometry analysis. <i>Analytical Methods</i> , 2019, 11, 4651-4658.	1.3	6
42	Ferrate(VI) pre-treatment and subsequent chlorination of blue-green algae: Quantification of disinfection byproducts. <i>Environment International</i> , 2019, 133, 105195.	4.8	51
43	Treatment of trace thallium in contaminated source waters by ferrate pre-oxidation and poly aluminium chloride coagulation. <i>Separation and Purification Technology</i> , 2019, 227, 115663.	3.9	28
44	DBP alteration from NOM and model compounds after UV/persulfate treatment with post chlorination. <i>Water Research</i> , 2019, 158, 237-245.	5.3	65
45	Controlled Microwave-Assisted Synthesis of the 2D-BiOCl/2D-g-C ₃ N ₄ Heterostructure for the Degradation of Amine-Based Pharmaceuticals under Solar Light Illumination. <i>ACS Omega</i> , 2019, 4, 4671-4678.	1.6	56
46	Comparison of ferrate and ozone pre-oxidation on disinfection byproduct formation from chlorination and chloramination. <i>Water Research</i> , 2019, 156, 110-124.	5.3	58
47	Halogenated acetaldehydes in water: A review of their occurrence, formation, precursors and control strategies. <i>Critical Reviews in Environmental Science and Technology</i> , 2019, 49, 1331-1385.	6.6	9
48	Enhancing oxidative capability of Ferrate(VI) for oxidative destruction of phenol in water through intercalation of Ferrate(VI) into layered double hydroxide. <i>Applied Clay Science</i> , 2019, 171, 48-56.	2.6	17
49	Evaluation of disinfection byproduct formation from extra- and intra-cellular algal organic matters during chlorination after Fe(vi) oxidation. <i>RSC Advances</i> , 2019, 9, 41022-41030.	1.7	10
50	Adsorption of soluble microbial products by sediments. <i>Ecotoxicology and Environmental Safety</i> , 2019, 169, 874-880.	2.9	2
51	Selective removal of dissolved organic matter affects the production and speciation of disinfection byproducts. <i>Science of the Total Environment</i> , 2019, 652, 75-84.	3.9	30
52	Activation of permanganate with hydrogen sulfite for enhanced oxidation of a typical amino acid. <i>Environmental Technology (United Kingdom)</i> , 2019, 40, 1605-1614.	1.2	3
53	FerrateVI oxidation of polycyclic aromatic compounds (PAHs and polar PACs) on DNAPL-spiked sand: degradation efficiency and oxygenated by-product formation compared to conventional oxidants. <i>Environmental Science and Pollution Research</i> , 2020, 27, 704-716.	2.7	10
54	Efficiency of pre-oxidation of natural organic matter for the mitigation of disinfection byproducts: Electron donating capacity and UV absorbance as surrogate parameters. <i>Water Research</i> , 2020, 187, 116418.	5.3	29

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55	Degradation of organic pollutants by ferrate/biochar: Enhanced formation of strong intermediate oxidative iron species. <i>Water Research</i> , 2020, 183, 116054.	5.3	92
56	Comparison of the impact of ozone, chlorine dioxide, ferrate and permanganate pre-oxidation on organic disinfection byproduct formation during post-chlorination. <i>Environmental Science: Water Research and Technology</i> , 2020, 6, 2382-2395.	1.2	16
57	Sulfite activation changes character of ferrate resultant particles. <i>Chemical Engineering Journal</i> , 2020, 393, 124771.	6.6	16
58	Ammonia-Mediated Bromate Inhibition during Ozonation Promotes the Toxicity Due to Organic Byproduct Transformation. <i>Environmental Science & Technology</i> , 2020, 54, 8926-8937.	4.6	26
59	Bibliometric review of research trends on disinfection by-products in drinking water during 1975–2018. <i>Separation and Purification Technology</i> , 2020, 241, 116741.	3.9	43
60	Effects of Pre-Oxidation on Haloacetonitrile and Trichloronitromethane Formation during Subsequent Chlorination of Nitrogenous Organic Compounds. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 1046.	1.2	6
61	Ferrate(VI) pretreatment before disinfection: An effective approach to controlling unsaturated and aromatic halo-disinfection byproducts in chlorinated and chloraminated drinking waters. <i>Environment International</i> , 2020, 138, 105641.	4.8	33
62	Ferrate(VI) pretreatment of water containing natural organic matter, bromide, and iodide: A potential strategy to control soluble lead release from PbO ₂ (s). <i>Chemosphere</i> , 2021, 263, 128035.	4.2	11
63	Replacing the internal standard to estimate micropollutants using deep and machine learning. <i>Water Research</i> , 2021, 188, 116535.	5.3	24
64	Addition of lemon before boiling chlorinated tap water: A strategy to control halogenated disinfection byproducts. <i>Chemosphere</i> , 2021, 263, 127954.	4.2	21
65	Physicochemical implications of cyanobacteria oxidation with Fe(VI). <i>Chemosphere</i> , 2021, 266, 128956.	4.2	5
66	Characteristics of organic matter removed from highly saline mature landfill leachate by an emergency disk tube-reverse osmosis treatment system. <i>Chemosphere</i> , 2021, 263, 128347.	4.2	25
67	Impacts of pre-oxidation on the formation of disinfection byproducts from algal organic matter in subsequent chlor(am)ination: A review. <i>Science of the Total Environment</i> , 2021, 754, 141955.	3.9	73
68	Using potassium ferrate control hazardous disinfection by-products during chlorination. <i>Environmental Science and Pollution Research</i> , 2021, 28, 54137-54146.	2.7	3
70	Iodinated trihalomethanes formation in iopamidol-contained water during ferrate/chlor(am)ination treatment. <i>Chemosphere</i> , 2021, 272, 129568.	4.2	6
71	Generation of Iron(IV) in the Oxidation of Amines by Ferrate(VI): Theoretical Insight and Implications in Oxidizing Pharmaceuticals. <i>ACS ES&T Water</i> , 2021, 1, 1932-1940.	2.3	11
72	Ferrate Preoxidation Alleviating Membrane Fouling through the Formation of a Hydrophilic Prefiltration Layer. <i>ACS ES&T Engineering</i> , 2021, 1, 1576-1586.	3.7	17
73	Sustainable ferrate oxidation: Reaction chemistry, mechanisms and removal of pollutants in wastewater. <i>Environmental Pollution</i> , 2021, 290, 117957.	3.7	55

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74	Insights into antimicrobial agent sulfacetamide transformation during chlorination disinfection process in aquaculture water. RSC Advances, 2021, 11, 14746-14754.	1.7	6
75	Emerging investigator series: control of membrane fouling by dissolved algal organic matter using pre-oxidation with coagulation as seawater pretreatment. Environmental Science: Water Research and Technology, 2020, 6, 935-944.	1.2	17
76	Study of the oxidation kinetics of nitrite ions by potassium ferrate(VI). Eastern-European Journal of Enterprise Technologies, 2018, 3, 18-25.	0.3	1
77	APPLICATION OF POTASSIUM FERRATE(VI) FOR OXIDATION OF SELECTED POLLUTANTS IN AQUATIC ENVIRONMENT – SHORT REVIEW. Architecture Civil Engineering Environment, 2019, 12, 129-137.	0.6	4
78	Effect of manganese compounds on synthesis of ferrates(VI). Technology Audit and Production Reserves, 2015, 3, 69.	0.1	1
79	Effect of chromium compounds on synthesis of alkali metal ferrates (VI). Eastern-European Journal of Enterprise Technologies, 2015, 3, 15.	0.3	1
80	Usage of mother liquor recycling for the obtaining of Fe(VI) compounds. Eastern-European Journal of Enterprise Technologies, 2017, 3, 55-59.	0.3	3
81	A study on the desulfurization wastewater treatment using Ferrate(â€¦). Journal of the Korean Society of Water and Wastewater, 2017, 31, 297-301.	0.3	0
82	Formation of iodinated products in Fe (II)/peroxydisulfate (PDS) system. Water Science and Technology: Water Supply, 2021, 21, 1016-1024.	1.0	0
83	Ferrate(VI) pre-treatment and subsequent electrochemical advanced oxidation processes: Recycling iron for enhancing oxidation of organic pollutants. Chemical Engineering Journal, 2022, 431, 134177.	6.6	14
84	Permanganate/Bisulfite Pre-Oxidation of Natural Organic Matter Enhances Nitrogenous Disinfection By-Products Formation during Subsequent Chlorination. Water (Switzerland), 2022, 14, 507.	1.2	1
85	Effect of UV/Chlorine Oxidation on Disinfection Byproduct Formation from Diverse Model Compounds. ACS ES&T Water, 2022, 2, 573-582.	2.3	9
86	UV/ozone induced physicochemical transformations of polystyrene nanoparticles and their aggregation tendency and kinetics with natural organic matter in aqueous systems. Journal of Hazardous Materials, 2022, 433, 128790.	6.5	18
87	Trichloramine and Hydroxyl Radical Contributions to Dichloroacetonitrile Formation Following Breakpoint Chlorination. Environmental Science & Technology, 2022, 56, 12592-12601.	4.6	11
88	Degradation of organic chemicals in aqueous system through ferrate-based processes: A review. Journal of Environmental Chemical Engineering, 2022, 10, 108706.	3.3	17
89	Oxidative treatment of NOM by selective oxidants in drinking water treatment and its impact on DBP formation in postchlorination. Science of the Total Environment, 2023, 858, 159908.	3.9	3
90	Novel activated system of ferrate oxidation on organic substances degradation: Fe(VI) regeneration or Fe(VI) reduction. Separation and Purification Technology, 2023, 304, 122322.	3.9	8
91	A simple and efficient alternative treatment for different drinking water. Water Science and Technology: Water Supply, 0, , .	1.0	0

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92	Improvements of ferrate(VI) pretreatment on membrane flux and membrane rejection using cheap NaClO reagent. Water Research, 2023, 229, 119520.	5.3	4