

Xiangru Zhang

List of Publications by Year in descending order

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Version: 2024-02-01

83
papers

6,963
citations

50170

46
h-index

56606

83
g-index

83
all docs

83
docs citations

83
times ranked

3232
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparative toxicity of new halophenolic DBPs in chlorinated saline wastewater effluents against a marine alga: Halophenolic DBPs are generally more toxic than haloaliphatic ones. <i>Water Research</i> , 2014, 65, 64-72.	5.3	662
2	Comparative Developmental Toxicity of New Aromatic Halogenated DBPs in a Chlorinated Saline Sewage Effluent to the Marine Polychaete <i>Platynereis dumerilii</i> . <i>Environmental Science & Technology</i> , 2013, 47, 10868-10876.	4.6	456
3	Four Groups of New Aromatic Halogenated Disinfection Byproducts: Effect of Bromide Concentration on Their Formation and Speciation in Chlorinated Drinking Water. <i>Environmental Science & Technology</i> , 2013, 47, 1265-1273.	4.6	298
4	Formation and Decomposition of New and Unknown Polar Brominated Disinfection Byproducts during Chlorination. <i>Environmental Science & Technology</i> , 2011, 45, 2194-2201.	4.6	243
5	Removal of Intermediate Aromatic Halogenated DBPs by Activated Carbon Adsorption: A New Approach to Controlling Halogenated DBPs in Chlorinated Drinking Water. <i>Environmental Science & Technology</i> , 2017, 51, 3435-3444.	4.6	230
6	Formation of Brominated Disinfection Byproducts during Chloramination of Drinking Water: New Polar Species and Overall Kinetics. <i>Environmental Science & Technology</i> , 2014, 48, 2579-2588.	4.6	218
7	Which Micropollutants in Water Environments Deserve More Attention Globally?. <i>Environmental Science & Technology</i> , 2022, 56, 13-29.	4.6	176
8	Nonhalogenated Aromatic DBPs in Drinking Water Chlorination: A Gap between NOM and Halogenated Aromatic DBPs. <i>Environmental Science & Technology</i> , 2020, 54, 1646-1656.	4.6	175
9	Evaluating the Comparative Toxicity of DBP Mixtures from Different Disinfection Scenarios: A New Approach by Combining Freeze-Drying or Rotoevaporation with a Marine Polychaete Bioassay. <i>Environmental Science & Technology</i> , 2018, 52, 10552-10561.	4.6	173
10	Application of (LC/)MS/MS precursor ion scan for evaluating the occurrence, formation and control of polar halogenated DBPs in disinfected waters: A review. <i>Water Research</i> , 2019, 158, 322-337.	5.3	157
11	Modeling the formation of TOCl, TOBr and TOI during chlor(am)ination of drinking water. <i>Water Research</i> , 2016, 96, 166-176.	5.3	156
12	Decomposition of trihaloacetic acids and formation of the corresponding trihalomethanes in drinking water. <i>Water Research</i> , 2002, 36, 3665-3673.	5.3	150
13	How Much of the Total Organic Halogen and Developmental Toxicity of Chlorinated Drinking Water Might Be Attributed to Aromatic Halogenated DBPs?. <i>Environmental Science & Technology</i> , 2021, 55, 5906-5916.	4.6	129
14	Current trends in the analysis and identification of emerging disinfection byproducts. <i>Trends in Environmental Analytical Chemistry</i> , 2016, 10, 24-34.	5.3	127
15	Formation of new brominated disinfection byproducts during chlorination of saline sewage effluents. <i>Water Research</i> , 2013, 47, 2710-2718.	5.3	126
16	Identification, toxicity and control of iodinated disinfection byproducts in cooking with simulated chlor(am)inated tap water and iodized table salt. <i>Water Research</i> , 2016, 88, 60-68.	5.3	123
17	Fast Selective Detection of Polar Brominated Disinfection Byproducts in Drinking Water Using Precursor Ion Scans. <i>Environmental Science & Technology</i> , 2008, 42, 6598-6603.	4.6	121
18	Underestimated risk from ozonation of wastewater containing bromide: Both organic byproducts and bromate contributed to the toxicity increase. <i>Water Research</i> , 2019, 162, 43-52.	5.3	121

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19	A Picture of Polar Iodinated Disinfection Byproducts in Drinking Water by (UPLC/)ESI-tqMS. <i>Environmental Science & Technology</i> , 2009, 43, 9287-9293.	4.6	119
20	Detection, identification and formation of new iodinated disinfection byproducts in chlorinated saline wastewater effluents. <i>Water Research</i> , 2015, 68, 77-86.	5.3	111
21	Boiling of Simulated Tap Water: Effect on Polar Brominated Disinfection Byproducts, Halogen Speciation, and Cytotoxicity. <i>Environmental Science & Technology</i> , 2014, 48, 149-156.	4.6	108
22	Three-step effluent chlorination increases disinfection efficiency and reduces DBP formation and toxicity. <i>Chemosphere</i> , 2017, 168, 1302-1308.	4.2	98
23	New Halogenated Disinfection Byproducts in Swimming Pool Water and Their Permeability across Skin. <i>Environmental Science & Technology</i> , 2012, 46, 7112-7119.	4.6	96
24	Halopyrroles: A New Group of Highly Toxic Disinfection Byproducts Formed in Chlorinated Saline Wastewater. <i>Environmental Science & Technology</i> , 2014, 48, 11846-11852.	4.6	96
25	A review on the degradation efficiency, DBP formation, and toxicity variation in the UV/chlorine treatment of micropollutants. <i>Chemical Engineering Journal</i> , 2021, 424, 130053.	6.6	91
26	Determination of iodide, iodate and organo-iodine in waters with a new total organic iodine measurement approach. <i>Water Research</i> , 2013, 47, 6660-6669.	5.3	84
27	Two-step chlorination: A new approach to disinfection of a primary sewage effluent. <i>Water Research</i> , 2017, 108, 339-347.	5.3	83
28	A new approach to controlling halogenated DBPs by GAC adsorption of aromatic intermediates from chlorine disinfection: Effects of bromide and contact time. <i>Separation and Purification Technology</i> , 2018, 203, 260-267.	3.9	82
29	Comparative Toxicity of Chlorinated Saline and Freshwater Wastewater Effluents to Marine Organisms. <i>Environmental Science & Technology</i> , 2015, 49, 14475-14483.	4.6	81
30	Formation of halogenated organic byproducts during medium-pressure UV and chlorine coexposure of model compounds, NOM and bromide. <i>Water Research</i> , 2011, 45, 6545-6554.	5.3	76
31	Characterization of High Molecular Weight Disinfection Byproducts from Chlorination of Humic Substances with/without Coagulation Pretreatment Using UF-SEC-ESI-MS/MS. <i>Environmental Science & Technology</i> , 2005, 39, 963-972.	4.6	73
32	Characterization of halogenated DBPs and identification of new DBPs trihalomethanols in chlorine dioxide treated drinking water with multiple extractions. <i>Journal of Environmental Sciences</i> , 2017, 58, 83-92.	3.2	73
33	Photoconversion of Chlorinated Saline Wastewater DBPs in Receiving Seawater is Overall a Detoxification Process. <i>Environmental Science & Technology</i> , 2017, 51, 58-67.	4.6	73
34	Characterization and Comparison of Disinfection By-Products of Four Major Disinfectants. <i>ACS Symposium Series</i> , 2000, , 299-314.	0.5	72
35	Generation of dissolved organic matter and byproducts from activated sludge during contact with sodium hypochlorite and its implications to on-line chemical cleaning in MBR. <i>Water Research</i> , 2016, 104, 44-52.	5.3	72
36	Bromate formation from the oxidation of bromide in the UV/chlorine process with low pressure and medium pressure UV lamps. <i>Chemosphere</i> , 2017, 183, 582-588.	4.2	72

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37	Transformation among Aromatic Iodinated Disinfection Byproducts in the Presence of Monochloramine: From Monoiodophenol to Triiodophenol and Diiodonitrophenol. <i>Environmental Science & Technology</i> , 2017, 51, 10562-10571.	4.6	72
38	Chemical cleaning-associated generation of dissolved organic matter and halogenated byproducts in ceramic MBR: Ozone versus hypochlorite. <i>Water Research</i> , 2018, 140, 243-250.	5.3	63
39	Effect of Reductive Property of Activated Carbon on Total Organic Halogen Analysis. <i>Environmental Science & Technology</i> , 2010, 44, 2105-2111.	4.6	62
40	Characterization of High Molecular Weight Disinfection Byproducts Resulting from Chlorination of Aquatic Humic Substances. <i>Environmental Science & Technology</i> , 2002, 36, 4033-4038.	4.6	61
41	Effect of NOM on arsenic adsorption by TiO ₂ in simulated As(III)-contaminated raw waters. <i>Water Research</i> , 2008, 42, 2309-2319.	5.3	60
42	Formation and toxicity of halogenated disinfection byproducts resulting from linear alkylbenzene sulfonates. <i>Chemosphere</i> , 2016, 149, 70-75.	4.2	54
43	Characterization of natural organic matter in drinking water: Sample preparation and analytical approaches. <i>Trends in Environmental Analytical Chemistry</i> , 2016, 12, 23-30.	5.3	53
44	Phototransformation of halophenolic disinfection byproducts in receiving seawater: Kinetics, products, and toxicity. <i>Water Research</i> , 2019, 150, 68-76.	5.3	52
45	Roles and Knowledge Gaps of Point-of-Use Technologies for Mitigating Health Risks from Disinfection Byproducts in Tap Water: A Critical Review. <i>Water Research</i> , 2021, 200, 117265.	5.3	51
46	Fate of dissolved organic matter and byproducts generated from on-line chemical cleaning with sodium hypochlorite in MBR. <i>Chemical Engineering Journal</i> , 2017, 323, 233-242.	6.6	50
47	Application of Fourier transform ion cyclotron resonance mass spectrometry to characterize natural organic matter. <i>Chemosphere</i> , 2020, 260, 127458.	4.2	46
48	Total organic iodine measurement: A new approach with UPLC/ESI-MS for off-line iodide separation/detection. <i>Water Research</i> , 2013, 47, 163-172.	5.3	45
49	Current methods for analyzing drinking water disinfection byproducts. <i>Current Opinion in Environmental Science and Health</i> , 2019, 7, 98-107.	2.1	44
50	Formation, adsorption and separation of high molecular weight disinfection byproducts resulting from chlorination of aquatic humic substances. <i>Water Research</i> , 2006, 40, 221-230.	5.3	43
51	Evaluation and improvement of total organic bromine analysis with respect to reductive property of activated carbon. <i>Water Research</i> , 2011, 45, 1229-1237.	5.3	42
52	Effects of temperature and chemical addition on the formation of bromoorganic DBPs during ozonation. <i>Water Research</i> , 2005, 39, 423-435.	5.3	41
53	Environmental and personal determinants of the uptake of disinfection by-products during swimming. <i>Environmental Research</i> , 2016, 149, 206-215.	3.7	39
54	An electrospray ionization-tandem mass spectrometry method for identifying chlorinated drinking water disinfection byproducts. <i>Water Research</i> , 2004, 38, 3920-3930.	5.3	38

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55	Low chlorine impurity might be beneficial in chlorine dioxide disinfection. <i>Water Research</i> , 2021, 188, 116520.	5.3	38
56	A new method for differentiating adducts of common drinking water DBPs from higher molecular weight DBPs in electrospray ionization-mass spectrometry analysis. <i>Water Research</i> , 2009, 43, 2093-2100.	5.3	37
57	Effects of enhanced coagulation on polar halogenated disinfection byproducts in drinking water. <i>Separation and Purification Technology</i> , 2010, 76, 26-32.	3.9	33
58	Volatile DBPs contributed marginally to the developmental toxicity of drinking water DBP mixtures against <i>Platynereis dumerilii</i> . <i>Chemosphere</i> , 2020, 252, 126611.	4.2	33
59	Acute changes in serum immune markers due to swimming in a chlorinated pool. <i>Environment International</i> , 2017, 105, 1-11.	4.8	32
60	A facile and green pretreatment method for nonionic total organic halogen (NTOX) analysis in water – Step II. Using photolysis to convert NTOX completely into halides. <i>Water Research</i> , 2018, 145, 579-587.	5.3	32
61	Electrospray Ionization-Tandem Mass Spectrometry Method for Differentiating Chlorine Substitution in Disinfection Byproduct Formation. <i>Environmental Science & Technology</i> , 2014, 48, 4877-4884.	4.6	29
62	Formation mechanisms of emerging organic contaminants during on-line membrane cleaning with NaOCl in MBR. <i>Journal of Hazardous Materials</i> , 2020, 386, 121966.	6.5	29
63	Mystery of the high chlorine consumption in disinfecting a chemically enhanced primary saline sewage. <i>Water Research</i> , 2018, 145, 181-189.	5.3	27
64	Effects of dechlorination conditions on the developmental toxicity of a chlorinated saline primary sewage effluent: Excessive dechlorination is better than not enough. <i>Science of the Total Environment</i> , 2019, 692, 117-126.	3.9	27
65	Exposure to disinfection by-products in swimming pools and biomarkers of genotoxicity and respiratory damage – The PISCINA2 Study. <i>Environment International</i> , 2019, 131, 104988.	4.8	26
66	Effect of quenching time and quenching agent dose on total organic halogen measurement. <i>International Journal of Environmental Analytical Chemistry</i> , 2013, 93, 1146-1158.	1.8	25
67	Effects of ascorbate and carbonate on the conversion and developmental toxicity of halogenated disinfection byproducts during boiling of tap water. <i>Chemosphere</i> , 2020, 254, 126890.	4.2	25
68	Effect of Copper(II) on Natural Organic Matter Removal During Drinking Water Coagulation Using Aluminum-Based Coagulants. <i>Water Environment Research</i> , 2007, 79, 593-599.	1.3	23
69	Identification, formation and control of polar brominated disinfection byproducts during cooking with edible salt, organic matter and simulated tap water. <i>Water Research</i> , 2020, 172, 115526.	5.3	23
70	A smart strategy for controlling disinfection byproducts by reversing the sequence of activated carbon adsorption and chlorine disinfection. <i>Science Bulletin</i> , 2018, 63, 1167-1169.	4.3	22
71	Whole pictures of halogenated disinfection byproducts in tap water from China's cities. <i>Frontiers of Environmental Science and Engineering</i> , 2015, 9, 121-130.	3.3	21
72	Addition of lemon before boiling chlorinated tap water: A strategy to control halogenated disinfection byproducts. <i>Chemosphere</i> , 2021, 263, 127954.	4.2	21

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73	Differentiation of Total Organic Brominated and Chlorinated Compounds in Total Organic Halide Measurement: A New Approach with an Ion-Chromatographic Technique. ACS Symposium Series, 2000, , 330-342.	0.5	20
74	A facile and green pretreatment method for nonionic total organic halogen (NTOX) analysis in water – Step I. Using electro dialysis to separate NTOX and halides. Water Research, 2018, 145, 631-639.	5.3	20
75	Inputs of disinfection by-products to the marine environment from various industrial activities: Comparison to natural production. Water Research, 2022, 217, 118383.	5.3	18
76	Tracing the sources of iodine species in a non-saline wastewater. Chemosphere, 2018, 205, 643-648.	4.2	16
77	Conversion of haloacid disinfection byproducts to amino acids via ammonolysis. Chemosphere, 2019, 224, 351-359.	4.2	13
78	Transformation of adenine and cytosine in chlorination – An ESI-tqMS investigation. Chemosphere, 2019, 234, 505-512.	4.2	12
79	Effects of ultrasonication on the DBP formation and toxicity during chlorination of saline wastewater effluents. Journal of Environmental Sciences, 2022, 117, 326-335.	3.2	12
80	Penetration of polar brominated DBPs through the activated carbon columns during total organic bromine analysis. Journal of Environmental Monitoring, 2011, 13, 2851.	2.1	11
81	Effect of Boiling on Halogenated DBPs and Their Developmental Toxicity in Real Tap Waters. ACS Symposium Series, 2015, , 45-60.	0.5	10
82	Removal of low-molecular weight DBPs and inorganic ions for characterization of high-molecular weight DBPs in drinking water. Water Research, 2006, 40, 1043-1051.	5.3	6
83	Integral model of a reacting chlorine jet in ammonia nitrogen and treated primary effluent. Journal of Hydro-Environment Research, 2019, 27, 50-64.	1.0	5