Susan D Richardson

List of Publications by Year
in descending order

104 papers	16,615 citations	39113 52 h-index	35168 102 g-index
105 all docs	105 docs citations	105 times ranked	10670 citing authors

#	Article	IF	Citations
1	Occurrence, genotoxicity, and carcinogenicity of regulated and emerging disinfection by-products in drinking water: A review and roadmap for research. Mutation Research - Reviews in Mutation Research, 2007, 636, 178-242.	2.4	2,531
2	Occurrence of a New Generation of Disinfection Byproducts. Environmental Science & Technology, 2006, 40, 7175-7185.	4.6	1,633
3	Occurrence and Mammalian Cell Toxicity of Iodinated Disinfection Byproducts in Drinking Water. Environmental Science & Technology, 2008, 42, 8330-8338.	4.6	830
4	Water Analysis: Emerging Contaminants and Current Issues. Analytical Chemistry, 2011, 83, 4614-4648.	3.2	804
5	Water Analysis: Emerging Contaminants and Current Issues. Analytical Chemistry, 2014, 86, 2813-2848.	3.2	740
6	Disinfection by-products and other emerging contaminants in drinking water. TrAC - Trends in Analytical Chemistry, 2003, 22, 666-684.	5.8	607
7	Haloacetonitriles vs. Regulated Haloacetic Acids:Â Are Nitrogen-Containing DBPs More Toxic?. Environmental Science & Technology, 2007, 41, 645-651.	4.6	597
8	Water Analysis: Emerging Contaminants and Current Issues. Analytical Chemistry, 2018, 90, 398-428.	3.2	465
9	Occurrence, Synthesis, and Mammalian Cell Cytotoxicity and Genotoxicity of Haloacetamides: An Emerging Class of Nitrogenous Drinking Water Disinfection Byproducts. Environmental Science & Technology, 2008, 42, 955-961.	4.6	452
10	Halonitromethane Drinking Water Disinfection Byproducts:Â Chemical Characterization and Mammalian Cell Cytotoxicity and Genotoxicity. Environmental Science & Technology, 2004, 38, 62-68.	4.6	446
11	Chemical and Biological Characterization of Newly Discovered Iodoacid Drinking Water Disinfection Byproducts. Environmental Science & Technology, 2004, 38, 4713-4722.	4.6	433
12	Water Analysis: Emerging Contaminants and Current Issues. Analytical Chemistry, 2016, 88, 546-582.	3.2	348
13	Drowning in Disinfection Byproducts? Assessing Swimming Pool Water. Environmental Science & Technology, 2007, 41, 363-372.	4.6	318
14	Whatâ€™s in the Pool? A Comprehensive Identification of Disinfection By-products and Assessment of Mutagenicity of Chlorinated and Brominated Swimming Pool Water. Environmental Health Perspectives, 2010, 118, 1523-1530.	2.8	269
15	Mammalian cell cytotoxicity and genotoxicity of the haloacetic acids, a major class of drinking water disinfection byâ€products. Environmental and Molecular Mutagenesis, 2010, 51, 871-878.	0.9	266
16	Water Analysis: Emerging Contaminants and Current Issues. Analytical Chemistry, 2020, 92, 473-505.	3.2	264
17	Tribromopyrrole, Brominated Acids, and Other Disinfection Byproducts Produced by Disinfection of Drinking Water Rich in Bromide. Environmental Science & Technology, 2003, 37, 3782-3793.	4.6	247
18	Formation of Toxic Iodinated Disinfection By-Products from Compounds Used in Medical Imaging. Environmental Science & Technology, 2011, 45, 6845-6854.	4.6	242

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19	Identification of New Ozone Disinfection Byproducts in Drinking Water. Environmental Science & Technology, 1999, 33, 3368-3377.	4.6	227
20	Emerging environmental contaminants: Challenges facing our next generation and potential engineering solutions. Environmental Technology and Innovation, 2017, 8, 40-56.	3.0	224
21	Transformation of pharmaceuticals during oxidation/disinfection processes in drinking water treatment. Journal of Hazardous Materials, 2014, 279, 461-475.	6.5	197
22	TIC-Tox: A preliminary discussion on identifying the forcing agents of DBP-mediated toxicity of disinfected water. Journal of Environmental Sciences, 2017, 58, 208-216.	3.2	184
23	Occurrence and Comparative Toxicity of Haloacetaldehyde Disinfection Byproducts in Drinking Water. Environmental Science & Technology, 2015, 49, 13749-13759.	4.6	167
24	Comparative Mammalian Cell Toxicity of N-DBPs and C-DBPs. ACS Symposium Series, 2008, , 36-50.	0.5	164
25	Changes in Dissolved Organic Matter during the Treatment Processes of a Drinking Water Plant in Sweden and Formation of Previously Unknown Disinfection Byproducts. Environmental Science & Technology, 2014, 48, 12714-12722.	4.6	155
26	Identification of New Drinking Water Disinfection Byproducts Formed in the Presence of Bromide. Environmental Science & Technology, 1999, 33, 3378-3383.	4.6	150
27	Formation of Iodinated Disinfection Byproducts (I-DBPs) in Drinking Water: Emerging Concerns and Current Issues. Accounts of Chemical Research, 2019, 52, 896-905.	7.6	144
28	Occurrence and Toxicity of Disinfection Byproducts in European Drinking Waters in Relation with the HIWATE Epidemiology Study. Environmental Science & Technology, 2012, 46, 12120-12128.	4.6	143
29	Effects of HCO₃^{â€“} on Degradation of Toxic Contaminants of Emerging Concern by UV/NO₃^{â€“}. Environmental Science & Technology, 2018, 52, 12697-12707.	4.6	129
30	Transformation of Iopamidol during Chlorination. Environmental Science & Technology, 2014, 48, 12689-12697.	4.6	127
31	Does Granular Activated Carbon with Chlorination Produce Safer Drinking Water? From Disinfection Byproducts and Total Organic Halogen to Calculated Toxicity. Environmental Science & Technology, 2019, 53, 5987-5999.	4.6	125
32	Concentration, Chlorination, and Chemical Analysis of Drinking Water for Disinfection Byproduct Mixtures Health Effects Research: U.S. EPAâ€™s Four Lab Study. Environmental Science & Technology, 2010, 44, 7184-7192.	4.6	122
33	To regulate or not to regulate? What to do with more toxic disinfection by-products?. Journal of Environmental Chemical Engineering, 2020, 8, 103939.	3.3	120
34	Progressive Increase in Disinfection Byproducts and Mutagenicity from Source to Tap to Swimming Pool and Spa Water: Impact of Human Inputs. Environmental Science & Technology, 2016, 50, 6652-6662.	4.6	116
35	The role of GC-MS and LC-MS in the discovery of drinking water disinfection by-products. Journal of Environmental Monitoring, 2002, 4, 1-9.	2.1	113
36	Comparison of Byproduct Formation in Waters Treated with Chlorine and Iodine: Relevance to Point-of-Use Treatment. Environmental Science & Technology, 2010, 44, 8446-8452.	4.6	111

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37	Emerging risks from ballast water treatment: The run-up to the International Ballast Water Management Convention. Chemosphere, 2014, 112, 256-266.	4.2	108
38	Exposome-Scale Investigations Guided by Global Metabolomics, Pathway Analysis, and Cognitive Computing. Analytical Chemistry, 2017, 89, 11505-11513.	3.2	106
39	Multispectral Identification of Chlorine Dioxide Disinfection Byproducts in Drinking Water. Environmental Science & Technology, 1994, 28, 592-599.	4.6	103
40	Integrated Disinfection By-Products Mixtures Research: Comprehensive Characterization of Water Concentrates Prepared from Chlorinated and Ozonated/Postchlorinated Drinking Water. Journal of Toxicology and Environmental Health - Part A: Current Issues, 2008, 71, 1165-1186.	1.1	99
41	Water Analysis: Emerging Contaminants and Current Issues. Analytical Chemistry, 2022, 94, 382-416.	3.2	92
42	Estimating Potential Increased Bladder Cancer Risk Due to Increased Bromide Concentrations in Sources of Disinfected Drinking Waters. Environmental Science & Technology, 2015, 49, 13094-13102.	4.6	88
43	Identification and Comparative Mammalian Cell Cytotoxicity of New Iodo-Phenolic Disinfection Byproducts in Chloraminated Oil and Gas Wastewaters. Environmental Science and Technology Letters, 2017, 4, 475-480.	3.9	83
44	Comparative Toxicity of Chlorinated Saline and Freshwater Wastewater Effluents to Marine Organisms. Environmental Science & Technology, 2015, 49, 14475-14483.	4.6	81
45	Assessing exposure in epidemiologic studies to disinfection by-products in drinking water: report from an international workshop.. Environmental Health Perspectives, 2002, 110, 53-60.	2.8	79
46	Drivers of Disinfection Byproduct Cytotoxicity in U.S. Drinking Water: Should Other DBPs Be Considered for Regulation?. Environmental Science & Technology, 2022, 56, 392-402.	4.6	77
47	Halogenated Organic Compounds Identified in Hydraulic Fracturing Wastewaters Using Ultrahigh Resolution Mass Spectrometry. Environmental Science & Technology, 2017, 51, 5377-5385.	4.6	71
48	Degradation of contaminants of emerging concern by UV/H2O2 for water reuse: Kinetics, mechanisms, and cytotoxicity analysis. Water Research, 2020, 174, 115587.	5.3	66
49	The DBP exposome: Development of a new method to simultaneously quantify priority disinfection by-products and comprehensively identify unknowns. Water Research, 2019, 148, 324-333.	5.3	64
50	Bromination of Marine Dissolved Organic Matter following Full Scale Electrochemical Ballast Water Disinfection. Environmental Science & Technology, 2015, 49, 9048-9055.	4.6	62
51	Characterization of iodinated disinfection by-products in chlorinated and chloraminated waters using Orbitrap based gas chromatography-mass spectrometry. Analytical and Bioanalytical Chemistry, 2016, 408, 3401-3411.	1.9	60
52	GAC to BAC: Does it make chloraminated drinking water safer?. Water Research, 2020, 172, 115432.	5.3	53
53	Trace Analysis of 61 Emerging Br-, Cl-, and I-DBPs: New Methods to Achieve Part-Per-Trillion Quantification in Drinking Water. Analytical Chemistry, 2020, 92, 3058-3068.	3.2	53
54	Investigation of the degradation of cresols in the treatments with ozone. Water Research, 2012, 46, 2795-2804.	5.3	49

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55	Formation of DBPs: State of the Science. ACS Symposium Series, 2015, , 189-214.	0.5	48
56	The impact of iodinated X-ray contrast agents on formation and toxicity of disinfection by-products in drinking water. Journal of Environmental Sciences, 2017, 58, 173-182.	3.2	46
57	Hydrogen Abstraction and Decomposition of Bromopicrin and Other Trihalogenated Disinfection Byproducts by GC/MS. Environmental Science & Technology, 2002, 36, 3362-3371.	4.6	45
58	Chlorination of Source Water Containing Iodinated X-ray Contrast Media: Mutagenicity and Identification of New Iodinated Disinfection Byproducts. Environmental Science & Technology, 2018, 52, 13047-13056.	4.6	45
59	Formation of iodo-trihalomethanes, iodo-haloacetic acids, and haloacetaldehydes during chlorination and chloramination of iodine containing waters in laboratory controlled reactions. Journal of Environmental Sciences, 2017, 58, 127-134.	3.2	44
60	Showering in Flint, MI: Is there a DBP problem?. Journal of Environmental Sciences, 2017, 58, 271-284.	3.2	43
61	Comparative mutagenicity of halomethanes and halonitromethanes in Salmonella TA100: structureâ€“activity analysis and mutation spectra. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2004, 554, 335-350.	0.4	41
62	Comparative Toxicity of High-Molecular Weight Iopamidol Disinfection Byproducts. Environmental Science and Technology Letters, 2016, 3, 81-84.	3.9	40
63	Total organic halogen (TOX) in human urine: A halogen-specific method for human exposure studies. Journal of Environmental Sciences, 2017, 58, 285-295.	3.2	39
64	Effect-Directed Analysis (EDA): A Promising Tool for Nontarget Identification of Unknown Disinfection Byproducts in Drinking Water. Environmental Science & Technology, 2020, 54, 1290-1292.	4.6	39
65	One planet: one health. A call to support the initiative on a global scienceâ€“policy body on chemicals and waste. Environmental Sciences Europe, 2022, 34, 21.	2.6	39
66	Mutagenicity in Salmonella of halonitromethanes: a recently recognized class of disinfection by-products in drinking water. Mutation Research - Genetic Toxicology and Environmental Mutagenesis, 2004, 562, 39-65.	0.9	36
67	Making Swimming Pools Safer: Does Copperâ€“Silver Ionization with Chlorine Lower the Toxicity and Disinfection Byproduct Formation?. Environmental Science & Technology, 2021, 55, 2908-2918.	4.6	36
68	Predominant N-Haloacetamide and Haloacetonitrile Formation in Drinking Water via the Aldehyde Reaction Pathway. Environmental Science & Technology, 2019, 53, 850-859.	4.6	34
69	Mixed organic and inorganic tapwater exposures and potential effects in greater Chicago area, USA. Science of the Total Environment, 2020, 719, 137236.	3.9	32
70	High-Resolution Mass Spectrometry Identification of Novel Surfactant-Derived Sulfur-Containing Disinfection Byproducts from Gas Extraction Wastewater. Environmental Science & Technology, 2020, 54, 9374-9386.	4.6	27
71	Exposure Characterization of Haloacetic Acids in Humans for Exposure and Risk Assessment Applications: An Exploratory Study. International Journal of Environmental Research and Public Health, 2019, 16, 471.	1.2	26
72	Investigation on the removal of the major cocaine metabolite (benzoylecgonine) in water matrices by UV 254 /H 2 O 2 process by using a flow microcapillary film array photoreactor as an efficient experimental tool. Water Research, 2016, 89, 375-383.	5.3	25

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73	A novel automated method for the quantification of ten halobenzoquinones in drinking water using online solid-phase extraction coupled with liquid chromatography tandem mass spectrometry. Journal of Chromatography A, 2020, 1612, 460642.	1.8	24
74	Disinfection Byproduct Recovery during Extraction and Concentration in Preparation for Chemical Analyses or Toxicity Assays. Environmental Science & Technology, 2021, 55, 14136-14145.	4.6	23
75	Formation of DBPs and halogen-specific TOX in the presence of iopamidol and chlorinated oxidants. Chemosphere, 2018, 202, 349-357.	4.2	19
76	Microseira wollei and Phormidium algae more than doubles DBP concentrations and calculated toxicity in drinking water. Water Research, 2022, 216, 118316.	5.3	19
77	Disinfection By-Products in Drinking Water, Recycled Water and Wastewater: Formation, Detection, Toxicity and Health Effects: Preface. Journal of Environmental Sciences, 2017, 58, 1.	3.2	18
78	Disinfection byproducts and halogen-specific total organic halogen speciation in chlorinated source waters â€“ The impact of iopamidol and bromide. Journal of Environmental Sciences, 2020, 89, 90-101.	3.2	17
79	Ultrafast photodegradation of isoxazole and isothiazolinones by UV254 and UV254/H2O2 photolysis in a microcapillary reactor. Water Research, 2020, 169, 115203.	5.3	15
80	Controlling disinfection byproducts from treated wastewater using adsorption with granular activated carbon: Impact of pre-ozonation and pre-chlorination. Water Research X, 2020, 9, 100068.	2.8	14
81	Tackling unknown disinfection by-products: Lessons learned. Journal of Hazardous Materials Letters, 2021, 2, 100041.	2.0	14
82	A new technique helps to uncover unknown peptides and disinfection by-products in water. Journal of Environmental Sciences, 2016, 42, 6-8.	3.2	13
83	Tracking the formation of new brominated disinfection by-products during the seawater desalination process. Environmental Science: Water Research and Technology, 2020, 6, 2521-2541.	1.2	12
84	Are Disinfection Byproducts (DBPs) Formed in My Cup of Tea? Regulated, Priority, and Unknown DBPs. Environmental Science & Technology, 2021, 55, 12994-13004.	4.6	12
85	Exposure science in an age of rapidly changing climate: challenges and opportunities. Journal of Exposure Science and Environmental Epidemiology, 2016, 26, 529-538.	1.8	11
86	In vitro effects-based method and water quality screening model for use in pre- and post-distribution treated waters. Science of the Total Environment, 2021, 768, 144750.	3.9	11
87	Relationships between regulated DBPs and emerging DBPs of health concern in U.S. drinking water. Journal of Environmental Sciences, 2022, 117, 161-172.	3.2	10
88	Feel the Burn: Disinfection Byproduct Formation and Cytotoxicity during Chlorine Burn Events. Environmental Science & Technology, 2022, 56, 8245-8254.	4.6	10
89	Emerging Lyngbya wollei toxins: A new high resolution mass spectrometry method to elucidate a potential environmental threat. Harmful Algae, 2019, 90, 101700.	2.2	9
90	Impact of chlorine exposure time on disinfection byproduct formation in the presence of iopamidol and natural organic matter during chloramination. Journal of Environmental Sciences, 2019, 78, 204-214.	3.2	9

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91	Disinfection byproducts in chlorinated or brominated swimming pools and spas: Role of brominated DBPs and association with mutagenicity. Journal of Environmental Sciences, 2022, 117, 253-263.	3.2	9
92	A balancing act: Optimizing free chlorine contact time to minimize iodo-DBPs, NDMA, and regulated DBPs in chloraminated drinking water. Journal of Environmental Sciences, 2022, 117, 315-325.	3.2	9
93	Method to assess component contribution to toxicity of complex mixtures: Assessment of puberty acquisition in rats exposed to disinfection byproducts. Journal of Environmental Sciences, 2017, 58, 311-321.	3.2	8
94	Do DBPs swim in salt water pools? Comparison of 60 DBPs formed by electrochemically generated chlorine vs. conventional chlorine. Journal of Environmental Sciences, 2022, 117, 232-241.	3.2	8
95	Probing the Formation of Reactive Oxygen Species by a Porous Self-Assembled Benzophenone Bis-Urea Host. ACS Omega, 2019, 4, 8290-8298.	1.6	7
96	Treating water containing elevated bromide and iodide levels with granular activated carbon and free chlorine: impacts on disinfection byproduct formation and calculated toxicity. Environmental Science: Water Research and Technology, 2020, 6, 3460-3475.	1.2	7
97	Transformation potential of cannabinoids during their passage through engineered water treatment systems: A perspective. Environment International, 2020, 137, 105586.	4.8	7
98	Non-target screening and novel methods based on mass spectrometry detection for identification of unknown disinfection byproducts. Comprehensive Analytical Chemistry, 2021, , 1-29.	0.7	3
99	How well does XAD resin extraction recover halogenated disinfection byproducts for comprehensive identification and toxicity testing?. Journal of Environmental Sciences, 2022, 117, 264-275.	3.2	3
100	Inability of GSTT1 to activate iodinated halomethanes to mutagens in Salmonella. Environmental and Molecular Mutagenesis, 2021, 62, 168-176.	0.9	2
101	Chloramination of iopamidol- and bromide-spiked waters containing natural organic matter. Water Science and Technology: Water Supply, 2021, 21, 886-898.	1.0	2
102	Coming to academia through the â€œback doorâ€• Analytical and Bioanalytical Chemistry, 2020, 412, 1719-1720.	1.9	0
103	A catalyst for integrating analytical biology, analytical chemistry, and engineering to improve drinking water safety: The groundbreaking work of Dr. Michael Plewa. Journal of Environmental Sciences, 2022, , .	3.2	0
104	Planet Contamination with Chemical Compounds. Molecules, 2022, 27, 1621.	1.7	0