Urs von Gunten

List of Publications by Citations

257 papers	31,597 citations	89 h-index	174 g-index
263 ext. papers	35,967 ext. citations	10.3 avg, IF	7.85 L-index

#	Paper	IF	Citations
257	The challenge of micropollutants in aquatic systems. *Science*, **2006**, 313, 1072-7	33.3	2376
256	Ozonation of drinking water: part I. Oxidation kinetics and product formation. *Water Research*, **2003**, 37, 1443-67	12.5	1671
255	Oxidation of pharmaceuticals during ozonation and advanced oxidation processes. *Environmental Science & Technology*, **2003**, 37, 1016-24	10.3	1191
254	Reactions of chlorine with inorganic and organic compounds during water treatment-Kinetics and mechanisms: a critical review. *Water Research*, **2008**, 42, 13-51	12.5	1188
253	Global Water Pollution and Human Health. *Annual Review of Environment and Resources*, **2010**, 35, 109-136	17.2	973
252	Ozonation of drinking water: part II. Disinfection and by-product formation in presence of bromide, iodide or chlorine. *Water Research*, **2003**, 37, 1469-87	12.5	952
251	Oxidation of pharmaceuticals during ozonation of municipal wastewater effluents: a pilot study. *Environmental Science & Technology*, **2005**, 39, 4290-9	10.3	632
250	Elimination of organic micropollutants in a municipal wastewater treatment plant upgraded with a full-scale post-ozonation followed by sand filtration. *Environmental Science & Technology*, **2009**, 43, 7862-9	10.3	622
249	Persulfate-Based Advanced Oxidation: Critical Assessment of Opportunities and Roadblocks. *Environmental Science & Technology*, **2020**, 54, 3064-3081	10.3	605
248	Oxidative transformation of micropollutants during municipal wastewater treatment: comparison of kinetic aspects of selective (chlorine, chlorine dioxide, ferrate VI, and ozone) and non-selective oxidants (hydroxyl radical). *Water Research*, **2010**, 44, 555-66	12.5	519
247	Hydroxyl Radical/Ozone Ratios During Ozonation Processes. I. The Rct Concept. *Ozone: Science and Engineering*, **1999**, 21, 239-260	2.4	498
246	Bromate Formation during Ozonization of Bromide-Containing Waters: Interaction of Ozone and Hydroxyl Radical Reactions. *Environmental Science & Technology*, **1994**, 28, 1234-42	10.3	450
245	Oxidation of antibacterial molecules by aqueous ozone: moiety-specific reaction kinetics and application to ozone-based wastewater treatment. *Environmental Science & Technology*, **2006**, 40, 1969-77	10.3	359
244	Comparison of the efficiency of *OH radical formation during ozonation and the advanced oxidation processes O3/H2O2 and UV/H2O2. *Water Research*, **2006**, 40, 3695-704	12.5	350
243	Chlorination of natural organic matter: kinetics of chlorination and of THM formation. *Water Research*, **2002**, 36, 65-74	12.5	343
242	Photosensitizer method to determine rate constants for the reaction of carbonate radical with organic compounds. *Environmental Science & Technology*, **2005**, 39, 9182-8	10.3	333
241	Effect of dissolved organic matter on the transformation of contaminants induced by excited triplet states and the hydroxyl radical. *Environmental Science & Technology*, **2011**, 45, 1334-40	10.3	318

240	Oxidative treatment of bromide-containing waters: formation of bromine and its reactions with inorganic and organic compounds--a critical review. *Water Research*, **2014**, 48, 15-42	12.5	304
239	Chlorination of phenols: kinetics and formation of chloroform. *Environmental Science & Technology*, **2002**, 36, 884-90	10.3	291
238	Formation of Iodo-Trihalomethanes during Disinfection and Oxidation of Iodide-Containing Waters. *Environmental Science & Technology*, **2000**, 34, 2784-2791	10.3	289
237	Phototransformation of selected pharmaceuticals during UV treatment of drinking water. *Water Research*, **2008**, 42, 121-8	12.5	288
236	Degradation Kinetics of Atrazine and Its Degradation Products with Ozone and OH Radicals: A Predictive Tool for Drinking Water Treatment. *Environmental Science & Technology*, **2000**, 34, 591-597	10.3	284
235	Prediction of micropollutant elimination during ozonation of municipal wastewater effluents: use of kinetic and water specific information. *Environmental Science & Technology*, **2013**, 47, 5872-81	10.3	278
234	Solar oxidation and removal of arsenic at circumneutral pH in iron containing waters. *Environmental Science & Technology*, **2001**, 35, 2114-21	10.3	274
233	Oxidation of Iodide and Hypoiodous Acid in the Disinfection of Natural Waters. *Environmental Science & Technology*, **1999**, 33, 4040-4045	10.3	274
232	Oxidation Processes in Water Treatment: Are We on Track?. *Environmental Science & Technology*, **2018**, 52, 5062-5075	10.3	262
231	Evaluation of a full-scale wastewater treatment plant upgraded with ozonation and biological post-treatments: Abatement of micropollutants, formation of transformation products and oxidation by-products. *Water Research*, **2018**, 129, 486-498	12.5	258
230	Ferrate (Fe(VI)) application for Municipal wastewater treatment: a novel process for simultaneous micropollutant oxidation and phosphate removal. *Environmental Science & Technology*, **2009**, 43, 3831-8	10.3	254
229	Advanced Oxidation of Bromide-Containing Waters: Bromate Formation Mechanisms. *Environmental Science & Technology*, **1998**, 32, 63-70	10.3	253
228	Chemistry. The chlorine dilemma. *Science*, **2011**, 331, 42-3	33.3	251
227	Efficiency and energy requirements for the transformation of organic micropollutants by ozone, O3/H2O2 and UV/H2O2. *Water Research*, **2011**, 45, 3811-22	12.5	244
226	Elimination of micropollutants during post-treatment of hospital wastewater with powdered activated carbon, ozone, and UV. *Environmental Science & Technology*, **2013**, 47, 7899-908	10.3	241
225	Oxidation of pharmaceuticals during water treatment with chlorine dioxide. *Water Research*, **2005**, 39, 3607-17	12.5	235
224	Efficiency of activated carbon to transform ozone into *OH radicals: influence of operational parameters. *Water Research*, **2005**, 39, 3189-98	12.5	233
223	Quantitative structure-activity relationships (QSARs) for the transformation of organic micropollutants during oxidative water treatment. *Water Research*, **2012**, 46, 6177-95	12.5	228

222	Kinetics of the oxidation of phenols and phenolic endocrine disruptors during water treatment with ferrate (Fe(VI)). *Environmental Science & Technology*, **2005**, 39, 8978-84	10.3	226
221	Bromate minimization during ozonation: mechanistic considerations. *Environmental Science & Technology*, **2001**, 35, 2525-31	10.3	222
220	Kinetic assessment and modeling of an ozonation step for full-scale municipal wastewater treatment: micropollutant oxidation, by-product formation and disinfection. *Water Research*, **2011**, 45, 605-17	12.5	221
219	Hydroxyl Radical/Ozone Ratios During Ozonation Processes. II. The Effect of Temperature, pH, Alkalinity, and DOM Properties. *Ozone: Science and Engineering*, **2000**, 22, 123-150	2.4	219
218	Ozonation of carbamazepine in drinking water: identification and kinetic study of major oxidation products. *Environmental Science & Technology*, **2005**, 39, 8014-22	10.3	216
217	Ozonation of reverse osmosis concentrate: kinetics and efficiency of beta blocker oxidation. *Water Research*, **2008**, 42, 3003-12	12.5	215
216	Removal of estrogenic activity and formation of oxidation products during ozonation of 17alpha-ethinylestradiol. *Environmental Science & Technology*, **2004**, 38, 5177-86	10.3	213
215	Interactions of fluoroquinolone antibacterial agents with aqueous chlorine: reaction kinetics, mechanisms, and transformation pathways. *Environmental Science & Technology*, **2005**, 39, 7065-76	10.3	212
214	Oxidation of antibacterial compounds by ozone and hydroxyl radical: elimination of biological activity during aqueous ozonation processes. *Environmental Science & Technology*, **2009**, 43, 2498-504	10.3	208
213	Oxidation of N-nitrosodimethylamine (NDMA) precursors with ozone and chlorine dioxide: kinetics and effect on NDMA formation potential. *Environmental Science & Technology*, **2007**, 41, 2056-63	10.3	193
212	Oxidative degradation of N-nitrosodimethylamine by conventional ozonation and the advanced oxidation process ozone/hydrogen peroxide. *Water Research*, **2007**, 41, 581-90	12.5	187
211	Oxidative elimination of cyanotoxins: comparison of ozone, chlorine, chlorine dioxide and permanganate. *Water Research*, **2007**, 41, 3381-93	12.5	184
210	Chemical oxidation of dissolved organic matter by chlorine dioxide, chlorine, and ozone: effects on its optical and antioxidant properties. *Environmental Science & Technology*, **2013**, 47, 11147-56	10.3	179
209	Reaction of bromine and chlorine with phenolic compounds and natural organic matter extracts--Electrophilic aromatic substitution and oxidation. *Water Research*, **2015**, 85, 476-86	12.5	173
208	Mechanistic and kinetic evaluation of organic disinfection by-product and assimilable organic carbon (AOC) formation during the ozonation of drinking water. *Water Research*, **2006**, 40, 2275-86	12.5	171
207	Measurement of the initial phase of ozone decomposition in water and wastewater by means of a continuous quench-flow system: application to disinfection and pharmaceutical oxidation. *Water Research*, **2006**, 40, 1884-94	12.5	167
206	Reaction of ferrate(VI) with ABTS and self-decay of ferrate(VI): kinetics and mechanisms. *Environmental Science & Technology*, **2014**, 48, 5154-62	10.3	163
205	Chemistry of Ozone in Water and Wastewater Treatment: From Basic Principles to Applications **2012**,		162

204	Prediction of micropollutant elimination during ozonation of a hospital wastewater effluent. *Water Research*, **2014**, 64, 134-148	12.5	158
203	Characterization of natural organic matter adsorption in granular activated carbon adsorbers. *Water Research*, **2011**, 45, 3951-9	12.5	158
202	Ozonation and Advanced Oxidation of Wastewater: Effect of O3 Dose, pH, DOM and HO□Scavengers on Ozone Decomposition and HO□Generation. *Ozone: Science and Engineering*, **2006**, 28, 247-259	2.4	155
201	Spectrophotometric determination of ferrate (Fe(VI)) in water by ABTS. *Water Research*, **2005**, 39, 1946-53	12.5	152
200	Development of surrogate correlation models to predict trace organic contaminant oxidation and microbial inactivation during ozonation. *Water Research*, **2012**, 46, 6257-72	12.5	147
199	Determination of Iodide and Iodate by Ion Chromatography with Postcolumn Reaction and UV/Visible Detection. *Analytical Chemistry*, **1999**, 71, 34-8	7.8	144
198	Phenols and amine induced HO* generation during the initial phase of natural water ozonation. *Environmental Science & Technology*, **2006**, 40, 3057-63	10.3	142
197	Methods for the photometric determination of reactive bromine and chlorine species with ABTS. *Water Research*, **2000**, 34, 4343-4350	12.5	142
196	Evaluation of the persistence of transformation products from ozonation of trace organic compounds - a critical review. *Water Research*, **2015**, 68, 150-70	12.5	133
195	Kinetics of membrane damage to high (HNA) and low (LNA) nucleic acid bacterial clusters in drinking water by ozone, chlorine, chlorine dioxide, monochloramine, ferrate(VI), and permanganate. *Water Research*, **2011**, 45, 1490-500	12.5	133
194	Oxidation kinetics of selected taste and odor compounds during ozonation of drinking water. *Environmental Science & Technology*, **2007**, 41, 626-31	10.3	132
193	Selective oxidation of key functional groups in cyanotoxins during drinking water ozonation. *Environmental Science & Technology*, **2007**, 41, 4397-404	10.3	131
192	Kinetics and mechanisms of formation of bromophenols during drinking water chlorination: assessment of taste and odor development. *Water Research*, **2005**, 39, 2979-93	12.5	131
191	MTBE oxidation by conventional ozonation and the combination ozone/hydrogen peroxide: efficiency of the processes and bromate formation. *Environmental Science & Technology*, **2001**, 35, 4252-9	10.3	131
190	Trade-offs in disinfection byproduct formation associated with precursor preoxidation for control of N-nitrosodimethylamine formation. *Environmental Science & Technology*, **2012**, 46, 4809-18	10.3	130
189	Kinetics and mechanistic aspects of As(III) oxidation by aqueous chlorine, chloramines, and ozone: relevance to drinking water treatment. *Environmental Science & Technology*, **2006**, 40, 3285-92	10.3	127
188	Inactivation of Antibiotic Resistant Bacteria and Resistance Genes by Ozone: From Laboratory Experiments to Full-Scale Wastewater Treatment. *Environmental Science & Technology*, **2016**, 50, 11862-11871	10.3	123
187	Kinetics and mechanisms of N-nitrosodimethylamine formation upon ozonation of N,N-dimethylsulfamide-containing waters: bromide catalysis. *Environmental Science & Technology*, **2010**, 44, 5762-8	10.3	123

186	Efficient removal of estrogenic activity during oxidative treatment of waters containing steroid estrogens. *Environmental Science & Technology*, **2008**, 42, 6333-9	10.3	119
185	Enhanced bromate control during ozonation: the chlorine-ammonia process. *Environmental Science & Technology*, **2004**, 38, 5187-95	10.3	112
184	Kinetics of triclosan oxidation by aqueous ozone and consequent loss of antibacterial activity: relevance to municipal wastewater ozonation. *Water Research*, **2007**, 41, 2481-90	12.5	111
183	Kinetic and mechanistic investigations of the oxidation of tramadol by ferrate and ozone. *Environmental Science & Technology*, **2012**, 46, 876-84	10.3	109
182	Adsorption as a cause for iron isotope fractionation in reduced groundwater. *Geochimica Et Cosmochimica Acta*, **2005**, 69, 4175-4185	5.5	105
181	Implications of sequential use of UV and ozone for drinking water quality. *Water Research*, **2006**, 40, 1864-76	12.5	105
180	Characterization of Oxidation processes: ozonation and the AOP O3/H2O2. *Journal - American Water Works Association*, **2001**, 93, 90-100	0.5	105
179	Biogeochemical changes in groundwater-infiltration systems: Column studies. *Geochimica Et Cosmochimica Acta*, **1993**, 57, 3895-3906	5.5	105
178	Advances in predicting organic contaminant abatement during ozonation of municipal wastewater effluent: reaction kinetics, transformation products, and changes of biological effects. *Environmental Science: Water Research and Technology*, **2016**, 2, 421-442	4.2	103
177	Fingerprinting the reactive toxicity pathways of 50 drinking water disinfection by-products. *Water Research*, **2016**, 91, 19-30	12.5	102
176	Organic Contaminant Abatement in Reclaimed Water by UV/H2O2 and a Combined Process Consisting of O3/H2O2 Followed by UV/H2O2: Prediction of Abatement Efficiency, Energy Consumption, and Byproduct Formation. *Environmental Science & Technology*, **2016**, 50, 3809-19	10.3	102
175	Kinetics of the reaction between hydrogen peroxide and hypobromous acid: Implication on water treatment and natural systems. *Water Research*, **1997**, 31, 900-906	12.5	101
174	Effect of operational and water quality parameters on conventional ozonation and the advanced oxidation process O/HO: Kinetics of micropollutant abatement, transformation product and bromate formation in a surface water. *Water Research*, **2017**, 122, 234-245	12.5	100
173	Mechanistic Study on the Formation of Cl-/Br-/I-Trihalomethanes during Chlorination/Chloramination Combined with a Theoretical Cytotoxicity Evaluation. *Environmental Science & Technology*, **2015**, 49, 11105-14	10.3	100
172	Iodate and iodo-trihalomethane formation during chlorination of iodide-containing waters: role of bromide. *Environmental Science & Technology*, **2012**, 46, 7350-7	10.3	100
171	Formation of assimilable organic carbon during oxidation of natural waters with ozone, chlorine dioxide, chlorine, permanganate, and ferrate. *Water Research*, **2011**, 45, 2002-10	12.5	96
170	Sunlight-induced transformation of sulfadiazine and sulfamethoxazole in surface waters and wastewater effluents. *Water Research*, **2014**, 57, 183-92	12.5	94
169	Emerging risks from ballast water treatment: the run-up to the International Ballast Water Management Convention. *Chemosphere*, **2014**, 112, 256-66	8.4	93

168	How do you like your tap water?. *Science*, **2016**, 351, 912-4	33.3	88
167	Bromide Sources and Loads in Swiss Surface Waters and Their Relevance for Bromate Formation during Wastewater Ozonation. *Environmental Science & Technology*, **2016**, 50, 9825-34	10.3	88
166	Differences in the chlorine reactivity of four microcystin analogues. *Water Research*, **2006**, 40, 1200-9	12.5	86
165	Influence of Carbonate on the Ozone/Hydrogen Peroxide Based Advanced Oxidation Process for Drinking Water Treatment. *Ozone: Science and Engineering*, **2000**, 22, 305-328	2.4	86
164	Formation of assimilable organic carbon (AOC) and specific natural organic matter (NOM) fractions during ozonation of phytoplankton. *Water Research*, **2007**, 41, 1447-54	12.5	85
163	Transformation of beta-lactam antibacterial agents during aqueous ozonation: reaction pathways and quantitative bioassay of biologically-active oxidation products. *Environmental Science & Technology*, **2010**, 44, 5940-8	10.3	84
162	Degradation rates of benzotriazoles and benzothiazoles under UV-C irradiation and the advanced oxidation process UV/H2O2. *Water Research*, **2015**, 74, 143-54	12.5	82
161	Mechanisms of Phenol Ozonation—Kinetics of Formation of Primary and Secondary Reaction Products. *Ozone: Science and Engineering*, **2009**, 31, 201-215	2.4	82
160	Oxidation of suspected N-nitrosodimethylamine (NDMA) precursors by ferrate (VI): kinetics and effect on the NDMA formation potential of natural waters. *Water Research*, **2008**, 42, 433-41	12.5	82
159	Ozonation of iodide-containing waters: selective oxidation of iodide to iodate with simultaneous minimization of bromate and I-THMs. *Water Research*, **2013**, 47, 1953-60	12.5	81
158	Occurrence of dissolved and particle-bound taste and odor compounds in Swiss lake waters. *Water Research*, **2009**, 43, 2191-200	12.5	81
157	Formation and reactivity of inorganic and organic chloramines and bromamines during oxidative water treatment. *Water Research*, **2017**, 110, 91-101	12.5	78
156	Enhanced N-nitrosamine formation in pool water by UV irradiation of chlorinated secondary amines in the presence of monochloramine. *Water Research*, **2013**, 47, 79-90	12.5	77
155	Simultaneous determination of bromide, bromate and nitrite in low µg l⁻¹ levels by ion chromatography without sample pretreatment. *Water Research*, **1999**, 33, 3239-3244	12.5	75
154	Options and limitations for bromate control during ozonation of wastewater. *Water Research*, **2017**, 116, 76-85	12.5	72
153	Combination of UV absorbance and electron donating capacity to assess degradation of micropollutants and formation of bromate during ozonation of wastewater effluents. *Water Research*, **2015**, 81, 388-97	12.5	72
152	Novel test procedure to evaluate the treatability of wastewater with ozone. *Water Research*, **2015**, 75, 324-35	12.5	72
151	Iron isotope fractionation and atom exchange during sorption of ferrous iron to mineral surfaces. *Geochimica Et Cosmochimica Acta*, **2009**, 73, 1795-1812	5.5	72

150	Oxidation of iodide and iodine on birnessite (delta-MnO2) in the pH range 4-8. *Water Research*, **2009**, 43, 3417-26	12.5	71
149	Reductive Dissolution of Fe(III) (Hydr)oxides by Cysteine: Kinetics and Mechanism. *Journal of Colloid and Interface Science*, **1997**, 194, 194-206	9.3	71
148	Formation of iodinated organic compounds by oxidation of iodide-containing waters with manganese dioxide. *Environmental Science & Technology*, **2009**, 43, 7003-9	10.3	70
147	Bromate formation in advanced oxidation processes. *Journal - American Water Works Association*, **1996**, 88, 53-65	0.5	70
146	Permeability of low molecular weight organics through nanofiltration membranes. *Water Research*, **2007**, 41, 3968-76	12.5	69
145	Comparison of methylisoborneol and geosmin abatement in surface water by conventional ozonation and an electro-peroxone process. *Water Research*, **2017**, 108, 373-382	12.5	66
144	A Tale of Two Treatments: The Multiple Barrier Approach to Removing Chemical Contaminants During Potable Water Reuse. *Accounts of Chemical Research*, **2019**, 52, 615-622	24.3	64
143	Formation of N-nitrosamines from chlorination and chloramination of molecular weight fractions of natural organic matter. *Water Research*, **2013**, 47, 535-46	12.5	63
142	DNA degradation by the mixture of copper and catechol is caused by DNA-copper-hydroperoxo complexes, probably DNA-Cu(I)OOH. *Environmental and Molecular Mutagenesis*, **2000**, 36, 5-12	3.2	62
141	Hypoiodous acid: kinetics of the buffer-catalyzed disproportionation. *Water Research*, **2000**, 34, 3197-3203	12.5	62
140	Development of Prediction Models for the Reactivity of Organic Compounds with Ozone in Aqueous Solution by Quantum Chemical Calculations: The Role of Delocalized and Localized Molecular Orbitals. *Environmental Science & Technology*, **2015**, 49, 9925-35	10.3	60
139	Trihalomethane formation by chlorination of ammonium- and bromide-containing groundwater in water supplies of Hanoi, Vietnam. *Water Research*, **2003**, 37, 3242-52	12.5	60
138	By-products formation during drinking water disinfection: a tool to assess disinfection efficiency?. *Water Research*, **2001**, 35, 2095-9	12.5	60
137	Photosensitizing and Inhibitory Effects of Ozonated Dissolved Organic Matter on Triplet-Induced Contaminant Transformation. *Environmental Science & Technology*, **2015**, 49, 8541-9	10.3	59
136	Oxidation of cetirizine, fexofenadine and hydrochlorothiazide during ozonation: Kinetics and formation of transformation products. *Water Research*, **2016**, 94, 350-362	12.5	59
135	Sulfamethoxazole and isoproturon degradation and detoxification by a laccase-mediator system: Influence of treatment conditions and mechanistic aspects. *Biochemical Engineering Journal*, **2015**, 103, 47-59	4.2	58
134	Ozonation of Para-Substituted Phenolic Compounds Yields p-Benzoquinones, Other Cyclic α,β-Unsaturated Ketones, and Substituted Catechols. *Environmental Science & Technology*, **2018**, 52, 4763-4773	10.3	58
133	Enhanced bromate formation during chlorination of bromide-containing waters in the presence of CuO: catalytic disproportionation of hypobromous acid. *Environmental Science & Technology*, **2012**, 46, 11054-61	10.3	58

132	Inactivation of Bacillus subtilis spores and formation of bromate during ozonation. *Water Research*, **2001**, 35, 2950-60	12.5	58
131	Non-target screening to trace ozonation transformation products in a wastewater treatment train including different post-treatments. *Water Research*, **2018**, 142, 267-278	12.5	58
130	Removal of bromide and iodide anions from drinking water by silver-activated carbon aerogels. *Journal of Colloid and Interface Science*, **2006**, 300, 437-41	9.3	57
129	Ag-doped carbon aerogels for removing halide ions in water treatment. *Water Research*, **2007**, 41, 1031-7	12.5	55
128	Transformation of 17alpha-ethinylestradiol during water chlorination: effects of bromide on kinetics, products, and transformation pathways. *Environmental Science & Technology*, **2009**, 43, 480-7	10.3	54
127	Metal-doped carbon aerogels as catalysts during ozonation processes in aqueous solutions. *Water Research*, **2006**, 40, 3375-84	12.5	52
126	Mechanistic Aspects of the Formation of Adsorbable Organic Bromine during Chlorination of Bromide-containing Synthetic Waters. *Environmental Science & Technology*, **2017**, 51, 5146-5155	10.3	51
125	Kinetics of Inactivation of Waterborne Enteric Viruses by Ozone. *Environmental Science & Technology*, **2018**, 52, 2170-2177	10.3	51
124	Evaluation of functional groups responsible for chloroform formation during water chlorination using compound specific isotope analysis. *Environmental Science & Technology*, **2008**, 42, 7778-85	10.3	51
123	Primary products of the oxygenation of iron(II) at an oxic□anoxic boundary: Nucleation, aggregation, and aging. *Journal of Colloid and Interface Science*, **1991**, 145, 127-139	9.3	51
122	Reactions of Ferrate(VI) with Iodide and Hypoiodous Acid: Kinetics, Pathways, and Implications for the Fate of Iodine during Water Treatment. *Environmental Science & Technology*, **2018**, 52, 7458-7467	10.3	51
121	Ozonation of source-separated urine for resource recovery and waste minimization: process modeling, reaction chemistry, and operational considerations. *Environmental Science & Technology*, **2008**, 42, 9329-37	10.3	50
120	Inactivation efficiency of Escherichia coli and autochthonous bacteria during ozonation of municipal wastewater effluents quantified with flow cytometry and adenosine tri-phosphate analyses. *Water Research*, **2016**, 101, 617-627	12.5	49
119	Peracetic acid oxidation of saline waters in the absence and presence of H□O□: secondary oxidant and disinfection byproduct formation. *Environmental Science & Technology*, **2015**, 49, 1698-705	10.3	49
118	Formation of disinfection by-products during ballast water treatment with ozone, chlorine, and peracetic acid: influence of water quality parameters. *Environmental Science: Water Research and Technology*, **2015**, 1, 465-480	4.2	47
117	Kinetics and mechanisms of nitrate and ammonium formation during ozonation of dissolved organic nitrogen. *Water Research*, **2017**, 108, 451-461	12.5	46
116	Combination of Ozone with Activated Carbon as an Alternative to Conventional Advanced Oxidation Processes. *Ozone: Science and Engineering*, **2006**, 28, 237-245	2.4	46
115	Formation of N-Nitrosodimethylamine during Chloramination of Secondary and Tertiary Amines: Role of Molecular Oxygen and Radical Intermediates. *Environmental Science & Technology*, **2017**, 51, 280-290	10.3	45

114	Ozone and chlorine reactions with dissolved organic matter - Assessment of oxidant-reactive moieties by optical measurements and the electron donating capacities. *Water Research*, **2018**, 144, 64-75	12.5	43
113	Oxidation of manganese(II) during chlorination: role of bromide. *Environmental Science & Technology*, **2013**, 47, 8716-23	10.3	42
112	Sample Enrichment for Bioanalytical Assessment of Disinfected Drinking Water: Concentrating the Polar, the Volatiles, and the Unknowns. *Environmental Science & Technology*, **2016**, 50, 6495-505	10.3	42
111	Reactions of aliphatic amines with ozone: Kinetics and mechanisms. *Water Research*, **2019**, 157, 514-528	12.5	41
110	Photolysis of inorganic chloramines and efficiency of trichloramine abatement by UV treatment of swimming pool water. *Water Research*, **2014**, 56, 280-91	12.5	41
109	Molecular mechanism of NDMA formation from N,N-dimethylsulfamide during ozonation: quantum chemical insights into a bromide-catalyzed pathway. *Environmental Science & Technology*, **2015**, 49, 4163-75	10.3	40
108	Evolution of algal toxicity during (photo)oxidative degradation of diuron. *Aquatic Toxicology*, **2011**, 101, 466-73	5.1	39
107	Determinants of disinfectant pretreatment efficacy for nitrosamine control in chloraminated drinking water. *Water Research*, **2015**, 84, 161-70	12.5	38
106	Quantification and characterization of dissolved organic nitrogen in wastewater effluents by electrodialysis treatment followed by size-exclusion chromatography with nitrogen detection. *Water Research*, **2013**, 47, 5381-91	12.5	37
105	Chlorination of bromide-containing waters: enhanced bromate formation in the presence of synthetic metal oxides and deposits formed in drinking water distribution systems. *Water Research*, **2013**, 47, 5307-15	12.5	36
104	Probing the Photosensitizing and Inhibitory Effects of Dissolved Organic Matter by Using N,N-dimethyl-4-cyanoaniline (DMABN). *Environmental Science & Technology*, **2016**, 50, 10997-11007	10.3	35
103	Kinetic and Mechanistic Aspects of the Reactions of Iodide and Hypoiodous Acid with Permanganate: Oxidation and Disproportionation. *Environmental Science & Technology*, **2016**, 50, 4358-65	10.3	35
102	Development of mutagenicity during degradation of N-nitrosamines by advanced oxidation processes. *Water Research*, **2014**, 66, 399-410	12.5	34
101	Analysis of N-nitrosamines and other nitro(so) compounds in water by high-performance liquid chromatography with post-column UV photolysis/Griess reaction. *Water Research*, **2013**, 47, 4893-903	12.5	34
100	195Pt, 119Sn and 31P NMR studies of alkyl, aryl and acyl trichlorostannate complexes of platinum(II). The crystal structure of trans-[Pt(SnCl3)(COC6H5)(PEt3)2]. *Journal of Organometallic Chemistry*, **1985**, 295, 239-256	2.3	34
99	In Situ Formation of Free Chlorine During ClO Treatment: Implications on the Formation of Disinfection Byproducts. *Environmental Science & Technology*, **2018**, 52, 13421-13429	10.3	34
98	Enhanced transformation of sulfonamide antibiotics by manganese(IV) oxide in the presence of model humic constituents. *Water Research*, **2019**, 153, 200-207	12.5	33
97	Effect of Ozone Treatment on Nano-Sized Silver Sulfide in Wastewater Effluent. *Environmental Science & Technology*, **2015**, 49, 10911-9	10.3	33

96	Removal of the antiviral agent oseltamivir and its biological activity by oxidative processes. *Environmental Pollution*, **2012**, 161, 30-5	9.3	33
95	Simultaneous prediction of Cryptosporidium parvum oocyst inactivation and bromate formation during ozonation of synthetic waters. *Environmental Science & Technology*, **2004**, 38, 2232-41	10.3	33
94	OH radical-initiated oxidation of organic compounds in atmospheric water phases: part 1. Reactions of peroxyl radicals derived from 2-butoxyethanol in water. *Atmospheric Environment*, **2000**, 34, 4241-4252	5.3	33
93	Sorption and catalytic oxidation of Fe(II) at the surface of calcite. *Geochimica Et Cosmochimica Acta*, **2009**, 73, 1826-1840	5.5	32
92	A stochastic model of an ozonation reactor. *Water Research*, **2003**, 37, 1667-77	12.5	32
91	Transformation of Contaminant Candidate List (CCL3) compounds during ozonation and advanced oxidation processes in drinking water: Assessment of biological effects. *Water Research*, **2016**, 93, 110-120	12.5	31
90	NOM degradation during river infiltration: effects of the climate variables temperature and discharge. *Water Research*, **2013**, 47, 6585-95	12.5	31
89	The impact of selected water quality parameters on the inactivation of Bacillus subtilis spores by monochloramine and ozone. *Water Research*, **2006**, 40, 373-82	12.5	30
88	Modeling Cryptosporidium parvum oocyst inactivation and bromate in a flow-through ozone contactor treating natural water. *Water Research*, **2007**, 41, 467-75	12.5	29
87	Two analytical approaches quantifying the electron donating capacities of dissolved organic matter to monitor its oxidation during chlorination and ozonation. *Water Research*, **2018**, 144, 677-689	12.5	29
86	Reactions of hypoiodous acid with model compounds and the formation of iodoform in absence/presence of permanganate. *Water Research*, **2017**, 119, 126-135	12.5	28
85	Abatement of Polychoro-1,3-butadienes in Aqueous Solution by Ozone, UV Photolysis, and Advanced Oxidation Processes (O/HO and UV/HO). *Environmental Science & Technology*, **2017**, 51, 497-505	10.3	28
84	Process Control For Ozonation Systems: A Novel Real-Time Approach. *Ozone: Science and Engineering*, **2013**, 35, 168-185	2.4	28
83	OH radical-initiated oxidation of organic compounds in atmospheric water phases: part 2. Reactions of peroxyl radicals with transition metals. *Atmospheric Environment*, **2000**, 34, 4253-4264	5.3	28
82	Differences in Viral Disinfection Mechanisms as Revealed by Quantitative Transfection of Echovirus 11 Genomes. *Applied and Environmental Microbiology*, **2019**, 85,	4.8	27
81	Chlorination of Phenols Revisited: Unexpected Formation of α,β-Unsaturated C-Dicarbonyl Ring Cleavage Products. *Environmental Science & Technology*, **2020**, 54, 826-834	10.3	27
80	Effects of Ozone on the Photochemical and Photophysical Properties of Dissolved Organic Matter. *Environmental Science & Technology*, **2019**, 53, 5622-5632	10.3	26
79	Micropollutant Oxidation Studied by Quantum Chemical Computations: Methodology and Applications to Thermodynamics, Kinetics, and Reaction Mechanisms. *Accounts of Chemical Research*, **2019**, 52, 605-614	24.3	26

78	UV/HO advanced oxidation for abatement of organophosphorous pesticides and the effects on various toxicity screening assays. *Chemosphere*, **2017**, 182, 477-482	8.4	25
77	Molecular-Level Transformation of Dissolved Organic Matter during Oxidation by Ozone and Hydroxyl Radical. *Environmental Science & Technology*, **2020**, 54, 10351-10360	10.3	25
76	MEMBRO3X, a Novel Combination of a Membrane Contactor with Advanced Oxidation (O3/H2O2) for Simultaneous Micropollutant Abatement and Bromate Minimization. *Environmental Science and Technology Letters*, **2017**, 4, 180-185	11	24
75	Ozonation of municipal wastewater effluent containing metal sulfides and metal complexes: Kinetics and mechanisms. *Water Research*, **2018**, 134, 170-180	12.5	24
74	Nitrate formation during ozonation as a surrogate parameter for abatement of micropollutants and the N-nitrosodimethylamine (NDMA) formation potential. *Water Research*, **2017**, 122, 246-257	12.5	23
73	A computer-based prediction platform for the reaction of ozone with organic compounds in aqueous solution: kinetics and mechanisms. *Environmental Sciences: Processes and Impacts*, **2017**, 19, 465-476	4.3	22
72	Quantification of Total N-Nitrosamine Concentrations in Aqueous Samples via UV-Photolysis and Chemiluminescence Detection of Nitric Oxide. *Analytical Chemistry*, **2017**, 89, 1574-1582	7.8	22
71	Column studies to assess the effects of climate variables on redox processes during riverbank filtration. *Water Research*, **2014**, 61, 263-75	12.5	22
70	Trihalomethane formation during water disinfection in four water supplies in the Somes river basin in Romania. *Environmental Science and Pollution Research*, **2009**, 16 Suppl 1, S55-65	5.1	22
69	Formation of brominated trihalomethanes during chlorination or ozonation of natural organic matter extracts and model compounds in saline water. *Water Research*, **2018**, 143, 492-502	12.5	21
68	Compound-specific carbon, nitrogen, and hydrogen isotope analysis of N-nitrosodimethylamine in aqueous solutions. *Analytical Chemistry*, **2015**, 87, 2916-24	7.8	21
67	Global sensitivity analysis for model-based prediction of oxidative micropollutant transformation during drinking water treatment. *Water Research*, **2009**, 43, 997-1004	12.5	21
66	Mixture effects of drinking water disinfection by-products: implications for risk assessment. *Environmental Science: Water Research and Technology*, **2020**, 6, 2341-2351	4.2	20
65	Specific and total N-nitrosamines formation potentials of nitrogenous micropollutants during chloramination. *Water Research*, **2018**, 135, 311-321	12.5	20
64	Chlorination of iodide-containing waters in the presence of CuO: formation of periodate. *Environmental Science & Technology*, **2014**, 48, 13173-80	10.3	20
63	Emerging investigators series: prediction of trace organic contaminant abatement with UV/H2O2: development and validation of semi-empirical models for municipal wastewater effluents. *Environmental Science: Water Research and Technology*, **2016**, 2, 460-473	4.2	20
62	Uncertainty in prediction of disinfection performance. *Water Research*, **2007**, 41, 2371-8	12.5	18
61	Oxidation of metal-diethylenetriaminepentaacetate (DTPA)--complexes during drinking water ozonation. *Water Research*, **2001**, 35, 1877-86	12.5	18

60	Determination of chlorate at low microgram/l levels by ion-chromatography with postcolumn reaction. *Journal of Chromatography A*, **1999**, 849, 209-15	4.5	18
59	Taste and odour problems generated in distribution systems: a case study on the formation of 2,4,6-trichloroanisole **2009**, 58, 386-394		17
58	Bromide and iodide removal from waters under dynamic conditions by Ag-doped aerogels. *Journal of Colloid and Interface Science*, **2007**, 306, 183-6	9.3	17
57	Proxies to monitor the inactivation of viruses by ozone in surface water and wastewater effluent. *Water Research*, **2019**, 166, 115088	12.5	16
56	Generation of hydroxyl radical during chlorination of hydroxyphenols and natural organic matter extracts. *Water Research*, **2020**, 177, 115691	12.5	16
55	Comparison of a novel extraction-based colorimetric (ABTS) method with membrane introduction mass spectrometry (MIMS): trichloramine dynamics in pool water. *Water Research*, **2014**, 58, 258-68	12.5	15
54	Bromate in Drinking Water A problem in Switzerland?. *Ozone: Science and Engineering*, **2003**, 25, 159-166	2.4	15
53	Quantification of the electron donating capacity and UV absorbance of dissolved organic matter during ozonation of secondary wastewater effluent by an assay and an automated analyzer. *Water Research*, **2020**, 185, 116235	12.5	15
52	Trichloramine reactions with nitrogenous and carbonaceous compounds: kinetics, products and chloroform formation. *Water Research*, **2015**, 71, 318-29	12.5	14
51	Steady-state modelling of biogeochemical processes in columns with aquifer material 1. Speciation and mass balances. *Chemical Geology*, **1996**, 133, 15-28	4.2	14
50	Efficiency of pre-oxidation of natural organic matter for the mitigation of disinfection byproducts: Electron donating capacity and UV absorbance as surrogate parameters. *Water Research*, **2020**, 187, 116418	12.5	14
49	Halide removal from aqueous solution by novel silver-polymeric materials. *Science of the Total Environment*, **2016**, 573, 1125-1131	10.2	14
48	Point-of-use water filters can effectively remove disinfection by-products and toxicity from chlorinated and chloraminated tap water. *Environmental Science: Water Research and Technology*, **2016**, 2, 875-883	4.2	13
47	Behavior of NDMA precursors at 21 full-scale water treatment facilities. *Environmental Science: Water Research and Technology*, **2018**, 4, 1966-1978	4.2	12
46	Chlorothalonil transformation products in drinking water resources: Widespread and challenging to abate. *Water Research*, **2020**, 183, 116066	12.5	11
45	Adaptation of Pseudomonas aeruginosa to constant sub-inhibitory concentrations of quaternary ammonium compounds. *Environmental Science: Water Research and Technology*, **2020**, 6, 1139-1152	4.2	11
44	Kinetics of the reaction between hydrogen peroxide and aqueous iodine: Implications for technical and natural aquatic systems. *Water Research*, **2020**, 179, 115852	12.5	11
43	REMOVAL OF PHARMACEUTICALS AND PERSONAL CARE PRODUCTS: RESULTS OF THE POSEIDON PROJECT. *Proceedings of the Water Environment Federation*, **2005**, 2005, 227-243		11

42	Formation of transformation products during ozonation of secondary wastewater effluent and their fate in post-treatment: From laboratory- to full-scale. *Water Research*, **2021**, 200, 117200	12.5	11
41	Kinetic and mechanistic aspects of selenite oxidation by chlorine, bromine, monochloramine, ozone, permanganate, and hydrogen peroxide. *Water Research*, **2019**, 164, 114876	12.5	10
40	Laser flash photolysis study of the photoinduced oxidation of 4-(dimethylamino)benzonitrile (DMABN). *Photochemical and Photobiological Sciences*, **2019**, 18, 534-545	4.2	9
39	Comparison of the impact of ozone, chlorine dioxide, ferrate and permanganate pre-oxidation on organic disinfection byproduct formation during post-chlorination. *Environmental Science: Water Research and Technology*, **2020**, 6, 2382-2395	4.2	9
38	Ozonation of organic compounds in water and wastewater: A critical review.. *Water Research*, **2022**, 213, 118053	12.5	9
37	Quenching of an Aniline Radical Cation by Dissolved Organic Matter and Phenols: A Laser Flash Photolysis Study. *Environmental Science & Technology*, **2020**, 54, 15057-15065	10.3	9
36	Optical properties and photochemical production of hydroxyl radical and singlet oxygen after ozonation of dissolved organic matter. *Environmental Science: Water Research and Technology*, **2021** , 7, 346-356	4.2	9
35	Enhanced Treatment of Municipal Wastewater Effluents by Fe-TAML/HO: Efficiency of Micropollutant Abatement. *Environmental Science & Technology*, **2021**, 55, 3313-3321	10.3	9
34	Enhanced chlorine dioxide decay in the presence of metal oxides: relevance to drinking water distribution systems. *Environmental Science & Technology*, **2013**, 47, 8365-72	10.3	8
33	Reactions of pyrrole, imidazole, and pyrazole with ozone: kinetics and mechanisms. *Environmental Science: Water Research and Technology*, **2020**, 6, 976-992	4.2	8
32	Impact of Combined Chlorination and Chloramination Conditions on N-Nitrosodimethylamine Formation. *Journal - American Water Works Association*, **2018**, 110, 11-24	0.5	8
31	Carbon, Hydrogen, and Nitrogen Isotope Fractionation Trends in N-Nitrosodimethylamine Reflect the Formation Pathway during Chloramination of Tertiary Amines. *Environmental Science & Technology*, **2017**, 51, 13170-13179	10.3	7
30	Surface water treatment by UV/H2O2 with subsequent soil aquifer treatment: impact on micropollutants, dissolved organic matter and biological activity. *Environmental Science: Water Research and Technology*, **2019**, 5, 1709-1722	4.2	7
29	Hypobromous Acid as an Unaccounted Sink for Marine Dimethyl Sulfide?. *Environmental Science & Technology*, **2019**, 53, 13146-13157	10.3	7
28	The Influence of Dissolved Organic Matter Character on Ozone Decomposition Rates and Rct. *ACS Symposium Series*, **2000**, 248-269	0.4	7
27	Cattle, clean water, and climate change: policy choices for the Brazilian Agricultural Frontier. *Environmental Science & Technology*, **2010**, 44, 8377-84	10.3	6
26	Sources of parameter uncertainty in predicting treatment performance: the case of preozonation in drinking water engineering. *Environmental Science & Technology*, **2007**, 41, 3991-6	10.3	6
25	Steady-state modelling of biogeochemical processes in columns with aquifer material:. *Chemical Geology*, **2000**, 167, 271-284	4.2	6

24	Oxidation of 51 micropollutants during drinking water ozonation: Formation of transformation products and their fate during biological post-filtration. *Water Research*, **2021**, 207, 117812	12.5	6
23	Chlorination and bromination of olefins: Kinetic and mechanistic aspects. *Water Research*, **2020**, 187, 116424	12.5	6
22	Assessment of the breakthrough of micropollutants in full-scale granular activated carbon adsorbers by rapid small-scale column tests and a novel pilot-scale sampling approach. *Environmental Science: Water Research and Technology*, **2020**, 6, 2742-2751	4.2	6
21	Ozonation as Pre-Treatment Step for the Biological Batch Degradation of Industrial Wastewater Containing 3-Methyl-Pyridine.. *Ozone: Science and Engineering*, **2001**, 23, 189-198	2.4	5
20	Permanganate Reduction by Hydrogen Peroxide: Formation of Reactive Manganese Species and Superoxide and Enhanced Micropollutant Abatement. *ACS ES&T Engineering*,		5
19	Oxidant-reactive carbonous moieties in dissolved organic matter: Selective quantification by oxidative titration using chlorine dioxide and ozone. *Water Research*, **2021**, 207, 117790	12.5	4
18	Enhanced transformation of aquatic organic compounds by long-lived photooxidants (LLPO) produced from dissolved organic matter. *Water Research*, **2021**, 190, 116707	12.5	4
17	Reactions of Unsaturated Carbonyls with Free Chlorine, Free Bromine, and Combined Chlorine. *Environmental Science & Technology*, **2021**, 55, 3305-3312	10.3	4
16	Formation of N-nitrosamines by micelle-catalysed nitrosation of aliphatic secondary amines. *Environmental Sciences: Processes and Impacts*, **2018**, 20, 1479-1487	4.3	4
15	Fate of Cr(III) during Ozonation of Secondary Municipal Wastewater Effluent. *Ozone: Science and Engineering*, **2018**, 40, 441-447	2.4	4
14	Toxic effects of substituted p-benzoquinones and hydroquinones in in vitro bioassays are altered by reactions with the cell assay medium. *Water Research*, **2021**, 202, 117415	12.5	4
13	Reply to Comment on Effect of Dissolved Organic Matter on the Transformation of Contaminants Induced by Excited Triplet States and the Hydroxyl Radical*Environmental Science & Technology*, **2011**, 45, 7947-7948	10.3	3
12	Micropollutants as internal probe compounds to assess UV fluence and hydroxyl radical exposure in UV/HO treatment. *Water Research*, **2021**, 195, 116940	12.5	3
11	Ozone disinfection of waterborne pathogens and their surrogates: A critical review.. *Water Research*, **2022**, 214, 118206	12.5	3
10	Photochemical oxidation of phenols and anilines mediated by phenoxyl radicals in aqueous solution.. *Water Research*, **2022**, 213, 118095	12.5	2
9	Reactions of amines with ozone and chlorine: Two novel oxidative methods to evaluate the N-DBP formation potential from dissolved organic nitrogen. *Water Research*, **2021**, 209, 117864	12.5	2
8	Application of UV absorbance and electron-donating capacity as surrogates for micropollutant abatement during full-scale ozonation of secondary-treated wastewater. *Water Research*, **2021**, 209, 117858	12.5	2
7	Iodide sources in the aquatic environment and its fate during oxidative water treatment - A critical review.. *Water Research*, **2022**, 217, 118417	12.5	1

6	Inputs of disinfection by-products to the marine environment from various industrial activities: Comparison to natural production.. *Water Research*, **2022**, 217, 118383	12.5	1
5	Nanoplastics Removal During Drinking Water Treatment: Laboratory- and Pilot-scale Experiments and Modeling. *Journal of Hazardous Materials*, **2022**, 129011	12.8	1
4	Reaction of DMS and HOBr as a Sink for Marine DMS and an Inhibitor of Bromoform Formation. *Environmental Science & Technology*, **2021**, 55, 5547-5558	10.3	0
3	Effect of cetyltrimethylammonium chloride on various Escherichia coli strains and their inactivation kinetics by ozone and monochloramine.. *Water Research*, **2022**, 216, 118278	12.5	0
2	Kinetic and mechanistic understanding of chlorite oxidation during chlorination: Optimization of ClO2 pre-oxidation for disinfection byproduct control. *Water Research*, **2022**, 118515	12.5	0
1	An American in Zurich: Jerry Schnoor as an Ambassador for U.S. Environmental Science and Engineering. *Environmental Science & Technology*, **2016**, 50, 6597-8	10.3	