Michael R. Hoffmann

List of Publications by Year
in descending order

236 papers	39,740 citations	4136 87 h-index	2506 196 g-index
240 all docs	240 docs citations	240 times ranked	29512 citing authors

#	Article	IF	Citations
1	Environmental Applications of Semiconductor Photocatalysis. Chemical Reviews, 1995, 95, 69-96.	23.0	17,205
2	Effects of Single Metal-Ion Doping on the Visible-Light Photoreactivity of TiO₂. Journal of Physical Chemistry C, 2010, 114, 783-792.	1.5	685
3	Photolysis of chloroform and other organic molecules in aqueous titanium dioxide suspensions. Environmental Science & Technology, 1991, 25, 494-500.	4.6	672
4	Photocatalytic production of hydrogen peroxides and organic peroxides in aqueous suspensions of titanium dioxide, zinc oxide, and desert sand. Environmental Science & Technology, 1988, 22, 798-806.	4.6	624
5	Oxidative Power of Nitrogen-Doped TiO2 Photocatalysts under Visible Illumination. Journal of Physical Chemistry B, 2004, 108, 17269-17273.	1.2	549
6	Optimization of Ultrasonic Irradiation as an Advanced Oxidation Technology. Environmental Science & Technology, 1997, 31, 2237-2243.	4.6	398
7	Effects of the preparation method of the ternary CdS/TiO2/Pt hybrid photocatalysts on visible light-induced hydrogen production. Journal of Materials Chemistry, 2008, 18, 2379.	6.7	370
8	Photocatalytic Production of H2O2 and Organic Peroxides on Quantum-Sized Semiconductor Colloids. Environmental Science & Technology, 1994, 28, 776-785.	4.6	368
9	Treatment technologies for aqueous perfluorooctanesulfonate (PFOS) and perfluorooctanoate (PFOA). Frontiers of Environmental Science and Engineering in China, 2009, 3, 129-151.	0.8	344
10	Application of ultrasonic irradiation for the degradation of chemical contaminants in water. Ultrasonics Sonochemistry, 1996, 3, S163-S172.	3.8	313
11	Infrared Spectra of Photoinduced Species on Hydroxylated Titania Surfaces. Journal of Physical Chemistry B, 2000, 104, 9842-9850.	1.2	309
12	The Sonochemical Degradation of Azobenzene and Related Azo Dyes:Â Rate Enhancements via Fenton's Reactions. Journal of Physical Chemistry A, 2000, 104, 301-307.	1.1	302
13	Henry's law constants of some environmentally important aldehydes. Environmental Science & Technology, 1988, 22, 1415-1418.	4.6	301
14	Photocatalytic Oxidation of Organic Acids on Quantum-Sized Semiconductor Colloids. Environmental Science & Technology, 1994, 28, 786-793.	4.6	296
15	Activation of Peroxymonosulfate by Oxygen Vacancies-Enriched Cobalt-Doped Black TiO₂ Nanotubes for the Removal of Organic Pollutants. Environmental Science & Technology, 2019, 53, 6972-6980.	4.6	288
16	Degradation and Removal Methods for Perfluoroalkyl and Polyfluoroalkyl Substances in Water. Environmental Engineering Science, 2016, 33, 615-649.	0.8	254
17	Reductive Defluorination of Aqueous Perfluorinated Alkyl Surfactants: Effects of Ionic Headgroup and Chain Length. Journal of Physical Chemistry A, 2009, 113, 690-696.	1.1	251
18	Time-resolved microwave conductivity. Part 1.â€”TiO2photoreactivity and size quantization. Journal of the Chemical Society, Faraday Transactions, 1994, 90, 3315-3322.	1.7	250

#	Article	IF	Citations
19	Photocatalytic degradation of pentachlorophenol on titanium dioxide particles: identification of intermediates and mechanism of reaction. Environmental Science & Technology, 1993, 27, 1681-1689.	4.6	236
20	Sonochemical Degradation of Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoate (PFOA) in Landfill Groundwater: Environmental Matrix Effects. Environmental Science & Technology, 2008, 42, 8057-8063.	4.6	231
21	Aromatic Compound Degradation in Water Using a Combination of Sonolysis and Ozonolysis. Environmental Science & Technology, 1998, 32, 2727-2733.	4.6	229
22	Development and Optimization of a TiO2-Coated Fiber-Optic Cable Reactor: Photocatalytic Degradation of 4-Chlorophenol. Environmental Science & Technology, 1995, 29, 2974-2981.	4.6	218
23	Reductive dissolution of fe(III) oxides byPseudomonas sp. 200. Biotechnology and Bioengineering, 1988, 32, 1081-1096.	1.7	208
24	Effects of Metal-Ion Dopants on the Photocatalytic Reactivity of Quantum-Sized TiO2 Particles. Angewandte Chemie International Edition in English, 1994, 33, 1091-1092.	4.4	204
25	Kinetics and Mechanism of the Sonolytic Conversion of the Aqueous Perfluorinated Surfactants, Perfluorooctanoate (PFOA), and Perfluorooctane Sulfonate (PFOS) into Inorganic Products. Journal of Physical Chemistry A, 2008, 112, 4261-4270.	1.1	203
26	Atmospheric chemistry of peroxides: a review. Atmospheric Environment Part A General Topics, 1990, 24, 1601-1633.	1.3	200
27	TiO2-Photocatalyzed As(III) Oxidation in Aqueous Suspensions:â€‰ Reaction Kinetics and Effects of Adsorption. Environmental Science & Technology, 2005, 39, 1880-1886.	4.6	197
28	Kinetics and Mechanism of the Sonolytic Degradation of CCl4:Â Intermediates and Byproducts. Environmental Science & Technology, 1996, 30, 864-871.	4.6	196
29	Photocatalytic Hydrogen Production with Visible Light over Pt-Interlinked Hybrid Composites of Cubic-Phase and Hexagonal-Phase CdS. Journal of Physical Chemistry C, 2008, 112, 12069-12073.	1.5	196
30	Slow Surface Charge Trapping Kinetics on Irradiated TiO2. Journal of Physical Chemistry B, 2002, 106, 2922-2927.	1.2	195
31	Synthesis and Stabilization of Blue-Black TiO₂ Nanotube Arrays for Electrochemical Oxidant Generation and Wastewater Treatment. Environmental Science & Technology, 2016, 50, 11888-11894.	4.6	195
32	Chemical mechanism of inorganic oxidants in the TiO2/UV process: increased rates of degradation of chlorinated hydrocarbons. Environmental Science & Technology, 1995, 29, 2567-2573.	4.6	193
33	Sonolytic Destruction of Methyltert-Butyl Ether by Ultrasonic Irradiation:Â The Role of O3, H2O2, Frequency, and Power Density. Environmental Science & Technology, 1999, 33, 3199-3205.	4.6	191
34	Kinetics and Mechanism of the Sonolytic Destruction of Methyltert-Butyl Ether by Ultrasonic Irradiation in the Presence of Ozone. Environmental Science & Technology, 1998, 32, 3194-3199.	4.6	187
35	Electrochemical Production of Hydroxyl Radical at Polycrystalline Nb-Doped TiO2Electrodes and Estimation of the Partitioning between Hydroxyl Radical and Direct Hole Oxidation Pathways. Journal of Physical Chemistry B, 1997, 101, 2637-2643.	1.2	185
36	Electrochemical disinfection of toilet wastewater using wastewater electrolysis cell. Water Research, 2016, 92, 164-172.	5.3	172

#	Article	IF	Citations
37	Kinetics and Mechanism of the Enhanced Reductive Degradation of Nitrobenzene by Elemental Iron in the Presence of Ultrasound. Environmental Science & Technology, 2000, 34, 1758-1763.	4.6	170
38	Photoreduction of iron oxyhydroxides in the presence of important atmospheric organic compounds. Environmental Science & Technology, 1993, 27, 2056-2062.	4.6	169
39	Dynamics of Lithium Dendrite Growth and Inhibition: Pulse Charging Experiments and Monte Carlo Calculations. Journal of Physical Chemistry Letters, 2014, 5, 1721-1726.	2.1	169
40	Photoreductive Mechanism of CCl4 Degradation on TiO2 Particles and Effects of Electron Donors. Environmental Science & Technology, 1995, 29, 1646-1654.	4.6	165
41	Kinetics and Mechanism of Pentachlorophenol Degradation by Sonication, Ozonation, and Sonolytic Ozonation. Environmental Science & Technology, 2000, 34, 1280-1285.	4.6	165
42	Time-resolved microwave conductivity. Part 2.â€”Quantum-sized TiO2and the effect of adsorbates and light intensity on charge-carrier dynamics. Journal of the Chemical Society, Faraday Transactions, 1994, 90, 3323-3330.	1.7	164
43	Kinetics and Mechanism of the Sonolytic Degradation of Chlorinated Hydrocarbons:â€‰ Frequency Effects. Journal of Physical Chemistry A, 1999, 103, 2734-2739.	1.1	161
44	BrÃ¸nsted basicity of the airâ€“water interface. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 18679-18683.	3.3	159
45	Chemical Bubble Dynamics and Quantitative Sonochemistry. Journal of Physical Chemistry A, 1998, 102, 6927-6934.	1.1	157
46	Toxic Byproduct Formation during Electrochemical Treatment of Latrine Wastewater. Environmental Science & Technology, 2017, 51, 7111-7119.	4.6	157
47	Sonochemical Degradation of Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoate (PFOA) in Groundwater: Kinetic Effects of Matrix Inorganics. Environmental Science & Technology, 2010, 44, 445-450.	4.6	153
48	Chemical composition of fogwater collected along the California coast. Environmental Science & Technology, 1985, 19, 730-736.	4.6	151
49	Cobalt-Doped Black TiO₂ Nanotube Array as a Stable Anode for Oxygen Evolution and Electrochemical Wastewater Treatment. ACS Catalysis, 2018, 8, 4278-4287.	5.5	151
50	Kinetics and mechanism of oxidation of hydrogen sulfide by hydrogen peroxide in acidic solution. Environmental Science & Technology, 1977, 11, 61-66.	4.6	150
51	Synergistic Effects of Sonolysis Combined with Ozonolysis for the Oxidation of Azobenzene and Methyl Orange. Journal of Physical Chemistry A, 2000, 104, 8930-8935.	1.1	148
52	Electrochemical Water Splitting Coupled with Organic Compound Oxidation: The Role of Active Chlorine Species. Journal of Physical Chemistry C, 2009, 113, 7935-7945.	1.5	148
53	Surface Structures of 4-Chlorocatechol Adsorbed on Titanium Dioxide. Environmental Science & Technology, 1996, 30, 2535-2542.	4.6	140
54	Chemical and Physical Characterization of a TiO2-Coated Fiber Optic Cable Reactor. Environmental Science & Technology, 1996, 30, 2806-2812.	4.6	139

#	Article	IF	Citations
55	Photocatalytic Production of Hydrogen from Water with Visible Light Using Hybrid Catalysts of CdS Attached to Microporous and Mesoporous Silicas. Journal of Physical Chemistry C, 2007, 111, 18195-18203.	1.5	136
56	Sonochemical degradation of p-nitrophenol in a parallel-plate near-field acoustical processor. Environmental Science & Technology, 1995, 29, 2790-2796.	4.6	131
57	Effects of Anodic Potential and Chloride Ion on Overall Reactivity in Electrochemical Reactors Designed for Solar-Powered Wastewater Treatment. Environmental Science & Technology, 2014, 48, 2377-2384.	4.6	129
58	Characterization of soluble and colloidal phase metal complexes in river water by ultrafiltration. A mass-balance approach. Environmental Science & Technology, 1981, 15, 655-661.	4.6	125
59	Environmental photochemistry: Is iron oxide (hematite) an active photocatalyst? A comparative study: Î±-Fe2O3, ZnO, TiO2. Journal of Photochemistry and Photobiology A: Chemistry, 1989, 48, 161-169.	2.0	123
60	Sonolytic Decomposition of Ozone in Aqueous Solution:Â Mass Transfer Effects. Environmental Science & Technology, 1998, 32, 3941-3947.	4.6	122
61	Kinetics and Mechanism of the Enhanced Reductive Degradation of CCl4by Elemental Iron in the Presence of Ultrasound. Environmental Science & Technology, 1998, 32, 3011-3016.	4.6	122
62	Degradation and Mineralization of Carbamazepine Using an Electro-Fenton Reaction Catalyzed by Magnetite Nanoparticles Fixed on an Electrocatalytic Carbon Fiber Textile Cathode. Environmental Science & Technology, 2018, 52, 12667-12674.	4.6	121
63	Electron Traps and the Stark Effect on Hydroxylated Titania Photocatalysts. Journal of Physical Chemistry B, 2002, 106, 7654-7658.	1.2	120
64	Photoinduced reductive dissolution of .alpha.-iron oxide (.alpha.-Fe2O3) by bisulfite. Environmental Science & Technology, 1986, 20, 943-948.	4.6	118
65	Oxidation of Gas-Phase SO₂ on the Surfaces of Acidic Microdroplets: Implications for Sulfate and Sulfate Radical Anion Formation in the Atmospheric Liquid Phase. Environmental Science & Technology, 2015, 49, 13768-13776.	4.6	118
66	Sonochemical Degradation of Perfluorooctanesulfonate in Aqueous Film-Forming Foams. Environmental Science & Technology, 2010, 44, 432-438.	4.6	114
67	Multilayer Heterojunction Anodes for Saline Wastewater Treatment: Design Strategies and Reactive Species Generation Mechanisms. Environmental Science & Technology, 2016, 50, 8780-8787.	4.6	114
68	Urea Degradation by Electrochemically Generated Reactive Chlorine Species: Products and Reaction Pathways. Environmental Science & Technology, 2014, 48, 11504-11511.	4.6	111
69	Photocatalytic production of hydrogen on Ni/NiO/KNbO3/CdS nanocomposites using visible light. Journal of Materials Chemistry, 2008, 18, 2371.	6.7	110
70	CO₂, water, and sunlight to hydrocarbon fuels: a sustained sunlight to fuel (Joule-to-Joule) photoconversion efficiency of 1%. Energy and Environmental Science, 2019, 12, 2685-2696.	15.6	109
71	Degradation of Alkylphenol Ethoxylate Surfactants in Water with Ultrasonic Irradiation. Environmental Science & Technology, 2000, 34, 311-317.	4.6	108
72	Proton Availability at the Air/Water Interface. Journal of Physical Chemistry Letters, 2010, 1, 1599-1604.	2.1	108

#	Article	IF	Citations
73	Metal ion-sulfur(IV) chemistry. 3. Thermodynamics and kinetics of transient iron(III)-sulfur(IV) complexes. Environmental Science & Technology, 1988, 22, 899-907.	4.6	107
74	Artificial Photosynthesis of C1â€“C3 Hydrocarbons from Water and CO₂ on Titanate Nanotubes Decorated with Nanoparticle Elemental Copper and CdS Quantum Dots. Journal of Physical Chemistry A, 2015, 119, 4658-4666.	1.1	105
75	Sonochemical Decomposition of Phenol:Â Evidence for a Synergistic Effect of Ozone and Ultrasound for the Elimination of Total Organic Carbon from Water. Environmental Science & Technology, 2006, 40, 6818-6823.	4.6	103
76	Impact of humic acid on the photoreductive degradation of perfluorooctane sulfonate (PFOS) by UV/Iodide process. Water Research, 2017, 127, 50-58.	5.3	102
77	Carbon nitride nanotubes with in situ grafted hydroxyl groups for highly efficient spontaneous H2O2 production. Applied Catalysis B: Environmental, 2021, 288, 119993.	10.8	102
78	Perfluorinated Surfactant Chain-Length Effects on Sonochemical Kinetics. Journal of Physical Chemistry A, 2009, 113, 9834-9842.	1.1	101
79	The H₂SO₄â€HNO₃â€NH₃ system at high humidities and in fogs: 1. Spatial and temporal patterns in the San Joaquin Valley of California. Journal of Geophysical Research, 1986, 91, 1073-1088.	3.3	98
80	Iron photochemistry of aqueous suspensions of ambient aerosol with added organic acids. Geochimica Et Cosmochimica Acta, 1994, 58, 3271-3279.	1.6	98
81	Regulation of Dissimilatory Fe(III) Reduction Activity in Shewanella putrefaciens. Applied and Environmental Microbiology, 1990, 56, 2811-2817.	1.4	98
82	Kinetics and mechanism of the oxidation of sulfide by oxygen: catalysis by homogeneous metal-phthalocyanine complexes. Environmental Science & Technology, 1979, 13, 1406-1414.	4.6	97
83	Protonation and Oligomerization of Gaseous Isoprene on Mildly Acidic Surfaces: Implications for Atmospheric Chemistry. Journal of Physical Chemistry A, 2012, 116, 6027-6032.	1.1	96
84	Photoreductive Dissolution of Iron Oxides Trapped in Ice and Its Environmental Implications. Environmental Science & Technology, 2010, 44, 4142-4148.	4.6	95
85	Photoelectrochemical Degradation of 4-Chlorocatechol at TiO2Electrodes:Â Comparison between Sorption and Photoreactivity. Environmental Science & Technology, 1997, 31, 2298-2302.	4.6	93
86	Kinetics of the Removal of Iron Pyrite from Coal by Microbial Catalysis. Applied and Environmental Microbiology, 1981, 42, 259-271.	1.4	93
87	Multiphase Porous Electrochemical Catalysts Derived from Iron-Based Metalâ€“Organic Framework Compounds. Environmental Science & Technology, 2019, 53, 6474-6482.	4.6	90
88	Simultaneous spectrophotometric measurement of iron(II) and iron(III) in atmospheric water. Environmental Science & Technology, 1992, 26, 1731-1736.	4.6	89
89	Solar-Powered Electrochemical Oxidation of Organic Compounds Coupled with the Cathodic Production of Molecular Hydrogen. Journal of Physical Chemistry A, 2008, 112, 7616-7626.	1.1	89
90	Kinetics and mechanism of the oxidation of aqueous hydrogen sulfide by peroxymonosulfate. Environmental Science & Technology, 1990, 24, 1819-1824.	4.6	88

#	Article	IF	Citations
91	Adsorption and Photodegradation of Dimethyl Methylphosphonate Vapor at TiO2Surfaces. Journal of Physical Chemistry B, 2005, 109, 19779-19785.	1.2	87
92	Role of Nitrogen Dioxide in the Production of Sulfate during Chinese Haze-Aerosol Episodes. Environmental Science & Technology, 2018, 52, 2686-2693.	4.6	87
93	Digital Loop-Mediated Isothermal Amplification on a Commercial Membrane. ACS Sensors, 2019, 4, 242-249.	4.0	86
94	Degradation of triethanolamine and chemical oxygen demand reduction in wastewater by photoactivated periodate. Water Environment Research, 1997, 69, 1112-1119.	1.3	85
95	Scale-Up of Sonochemical Reactors for Water Treatment. Industrial & Engineering Chemistry Research, 2001, 40, 3855-3860.	1.8	81
96	UV/Nitrilotriacetic Acid Process as a Novel Strategy for Efficient Photoreductive Degradation of Perfluorooctanesulfonate. Environmental Science & Technology, 2018, 52, 2953-2962.	4.6	81
97	Electrolysis of urea and urine for solar hydrogen. Catalysis Today, 2013, 199, 2-7.	2.2	80
98	Analysis of aldehydes in cloud- and fogwater samples by HPLC with a postcolumn reaction detector. Environmental Science & Technology, 1989, 23, 556-561.	4.6	79
99	Oxidation of hydrogen sulfide in aqueous solution by ultrasonic irradiation. Environmental Science & Technology, 1992, 26, 2420-2428.	4.6	79
100	Mathematical Model of a Photocatalytic Fiber-Optic Cable Reactor for Heterogeneous Photocatalysis. Environmental Science & Technology, 1998, 32, 398-404.	4.6	79
101	Enhancing the activity of oxygen-evolution and chlorine-evolution electrocatalysts by atomic layer deposition of TiO₂. Energy and Environmental Science, 2019, 12, 358-365.	15.6	78
102	Sonochemical Degradation Rates of Volatile Solutes. Journal of Physical Chemistry A, 1999, 103, 2696-2699.	1.1	77
103	Photocatalytic Production of H2 on Nanocomposite Catalysts. Industrial & Engineering Chemistry Research, 2007, 46, 7476-7488.	1.8	77
104	Photochemical transformations in ice: Implications for the fate of chemical species. Geophysical Research Letters, 2000, 27, 3321-3324.	1.5	76
105	Visible-Light Photoactivity of Nitrogen-Doped TiO₂:â€‰ Photo-oxidation of HCO₂H to CO₂ and H₂O. Journal of Physical Chemistry C, 2007, 111, 15357-15362.	1.5	76
106	Reductive degradation of perfluoroalkyl compounds with aquated electrons generated from iodide photolysis at 254 nm. Photochemical and Photobiological Sciences, 2011, 10, 1945-1953.	1.6	76
107	3D Printed Microfluidic Mixersâ€”A Comparative Study on Mixing Unit Performances. Small, 2019, 15, e1804326.	5.2	76
108	Dry Deposition of Biogenic Terpenes via Cationic Oligomerization on Environmental Aqueous Surfaces. Journal of Physical Chemistry Letters, 2012, 3, 3102-3108.	2.1	75

#	Article	IF	Citations
109	Quantifying the dependence of dead lithium losses on the cycling period in lithium metal batteries. Physical Chemistry Chemical Physics, 2014, 16, 24965-24970.	1.3	73
110	Metal ion-sulfur(IV) chemistry. 2. Kinetic studies of the redox chemistry of copper(II)-sulfur(IV) complexes. Environmental Science & Technology, 1988, 22, 891-898.	4.6	71
111	Sorption of Perfluorochemicals to Granular Activated Carbon in the Presence of Ultrasound. Journal of Physical Chemistry A, 2011, 115, 2250-2257.	1.1	71
112	Electrochemical Transformation of Trace Organic Contaminants in Latrine Wastewater. Environmental Science & Technology, 2016, 50, 10198-10208.	4.6	71
113	Phosphate Recovery from Human Waste via the Formation of Hydroxyapatite during Electrochemical Wastewater Treatment. ACS Sustainable Chemistry and Engineering, 2018, 6, 3135-3142.	3.2	71
114	Solar-Powered Production of Molecular Hydrogen from Water. Journal of Physical Chemistry C, 2008, 112, 885-889.	1.5	70
115	Superacid Chemistry on Mildly Acidic Water. Journal of Physical Chemistry Letters, 2010, 1, 3488-3493.	2.1	70
116	Combinatorial doping of TiO₂ with platinum (Pt), chromium (Cr), vanadium (V), and nickel (Ni) to achieve enhanced photocatalytic activity with visible light irradiation. Journal of Materials Research, 2010, 25, 149-158.	1.2	69
117	Catalytic autoxidation of hydrogen sulfide in wastewater. Environmental Science & Technology, 1991, 25, 1153-1160.	4.6	68
118	Electrochemical treatment of human waste coupled with molecular hydrogen production. RSC Advances, 2014, 4, 4596-4608.	1.7	68
119	Development of a Mechanically Flexible 2D-MXene Membrane Cathode for Selective Electrochemical Reduction of Nitrate to N₂: Mechanisms and Implications. Environmental Science & Technology, 2021, 55, 10695-10703.	4.6	68
120	Thermal relaxation of lithium dendrites. Physical Chemistry Chemical Physics, 2015, 17, 8000-8005.	1.3	66
121	Synthesis of g-C₃N₄/Bi₂O₃/TiO₂ composite nanotubes: enhanced activity under visible light irradiation and improved photoelectrochemical activity. RSC Advances, 2015, 5, 48983-48991.	1.7	65
122	Anion Fractionation and Reactivity at Air/Water:Methanol Interfaces. Implications for the Origin of Hofmeister Effects. Journal of Physical Chemistry B, 2008, 112, 7157-7161.	1.2	64
123	Quantum Yields of the Photocatalytic Oxidation of Formate in Aqueous TiO2 Suspensions under Continuous and Periodic Illumination. Journal of Physical Chemistry B, 2001, 105, 1351-1354.	1.2	62
124	Instrument to collect fogwater for chemical analysis. Review of Scientific Instruments, 1985, 56, 1291-1293.	0.6	60
125	Criegee Intermediates React with Levoglucosan on Water. Journal of Physical Chemistry Letters, 2017, 8, 3888-3894.	2.1	58
126	Fogwater chemistry at Riverside, California. Atmospheric Environment Part B Urban Atmosphere, 1990, 24, 185-205.	0.5	55

#	Article	IF	Citations
127	Photogeneration of Distant Radical Pairs in Aqueous Pyruvic Acid Glasses. Journal of Physical Chemistry A, 2006, 110, 931-935.	1.1	55
128	Anions dramatically enhance proton transfer through aqueous interfaces. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10228-10232.	3.3	55
129	Bi_xTi_{1â€“x}O_z Functionalized Heterojunction Anode with an Enhanced Reactive Chlorine Generation Efficiency in Dilute Aqueous Solutions. Chemistry of Materials, 2015, 27, 2224-2233.	3.2	53
130	Heterogeneous Reaction of Gaseous Ozone with Aqueous Iodide in the Presence of Aqueous Organic Species. Journal of Physical Chemistry A, 2010, 114, 6016-6021.	1.1	52
131	Quantification of SO₂ Oxidation on Interfacial Surfaces of Acidic Micro-Droplets: Implication for Ambient Sulfate Formation. Environmental Science & Technology, 2018, 52, 9079-9086.	4.6	51
132	Photoreduction of Iron Oxyhydroxides and the Photooxidation of Halogenated Acetic Acids. Environmental Science & Technology, 1995, 29, 1215-1222.	4.6	50
133	Facet-dependent performance of BiOBr for photocatalytic reduction of Cr(<scp>vi</scp>). RSC Advances, 2016, 6, 2028-2031.	1.7	49
134	Photocatalytic conversion of carbon dioxide to methane on TiO2/CdS in aqueous isopropanol solution. Catalysis Today, 2016, 266, 153-159.	2.2	48
135	The chemical composition of intercepted cloudwater in the Sierra Nevada. Atmospheric Environment Part A General Topics, 1990, 24, 959-972.	1.3	47
136	Sonolytic Decomposition of Aqueous Bioxalate in the Presence of Ozone. Journal of Physical Chemistry A, 2010, 114, 4968-4980.	1.1	47
137	Intensive studies of Sierra Nevada cloudwater chemistry and its relationship to precursor aerosol and gas concentrations. Atmospheric Environment Part A General Topics, 1990, 24, 1741-1757.	1.3	45
138	Hydrogen Isotope Effects and Mechanism of Aqueous Ozone and Peroxone Decompositions. Journal of the American Chemical Society, 2004, 126, 4432-4436.	6.6	45
139	Photocatalytic oxidation of aqueous ammonia over platinized microwave-assisted titanate nanotubes. Applied Catalysis B: Environmental, 2010, 99, 74-80.	10.8	45
140	Asymmetric Membrane for Digital Detection of Single Bacteria in Milliliters of Complex Water Samples. ACS Nano, 2018, 12, 10281-10290.	7.3	45
141	Prompt Formation of Organic Acids in Pulse Ozonation of Terpenes on Aqueous Surfaces. Journal of Physical Chemistry Letters, 2010, 1, 2374-2379.	2.1	44
142	Conversion of gaseous nitrogen dioxide to nitrate and nitrite on aqueous surfactants. Physical Chemistry Chemical Physics, 2011, 13, 5144.	1.3	44
143	Hofmeister effects in micromolar electrolyte solutions. Journal of Chemical Physics, 2012, 136, 154707.	1.2	44
144	In Situ Mass Spectrometric Detection of Interfacial Intermediates in the Oxidation of RCOOH(aq) by Gas-Phase OH-Radicals. Journal of Physical Chemistry A, 2014, 118, 4130-4137.	1.1	44

#	Article	IF	Citations
145	Smartphone-Based in-Gel Loop-Mediated Isothermal Amplification (gLAMP) System Enables Rapid Coliphage MS2 Quantification in Environmental Waters. Environmental Science & Technology, 2018, 52, 6399-6407.	4.6	43
146	Design and preliminary implementation of onsite electrochemical wastewater treatment and recycling toilets for the developing world. Environmental Science: Water Research and Technology, 2018, 4, 1439-1450.	1.2	43
147	Aldehyde-bisulfite adducts: prediction of some of their thermodynamic and kinetic properties. Environmental Science & Technology, 1988, 22, 92-99.	4.6	42
148	Applications of Ultrasound in NAPL Remediation:Â Sonochemical Degradation of TCE in Aqueous Surfactant Solutions. Environmental Science & Technology, 2001, 35, 3019-3024.	4.6	42
149	Cooperative Hydration of Pyruvic Acid in Ice. Journal of the American Chemical Society, 2006, 128, 10621-10624.	6.6	42
150	Annealing kinetics of electrodeposited lithium dendrites. Journal of Chemical Physics, 2015, 143, 134701.	1.2	42
151	Stepwise Oxidation of Aqueous Dicarboxylic Acids by Gas-Phase OH Radicals. Journal of Physical Chemistry Letters, 2015, 6, 527-534.	2.1	42
152	Urine microbial fuel cells in a semi-controlled environment for onsite urine pre-treatment and electricity production. Journal of Power Sources, 2018, 400, 441-448.	4.0	42
153	Kinetics and mechanism of dissimilative Fe(III) reduction byPseudomonas sp. 200. Biotechnology and Bioengineering, 1986, 28, 1657-1671.	1.7	41
154	Weak Acids Enhance Halogen Activation on Atmospheric Waterâ€™s Surfaces. Journal of Physical Chemistry A, 2011, 115, 4935-4940.	1.1	40
155	Metal ion-sulfur(IV) chemistry. 1. Structure and thermodynamics of transient copper(II)-sulfur(IV) complexes. Environmental Science & Technology, 1988, 22, 883-891.	4.6	39
156	Stability, Stoichiometry, and Structure of Fe(II) and Fe(III) Complexes with Di-2-pyridyl Ketone Benzoylhydrazone: Environmental Applications. Environmental Science & Technology, 1994, 28, 2080-2086.	4.6	39
157	Peroxymonosulfate (PMS) activation on cobalt-doped TiO₂ nanotubes: degradation of organics under dark and solar light irradiation conditions. Environmental Science: Nano, 2020, 7, 1602-1611.	2.2	39
158	Degradation of organic compounds in wastewater matrix by electrochemically generated reactive chlorine species: Kinetics and selectivity. Catalysis Today, 2018, 313, 189-195.	2.2	38
159	Iron(III)-doped Q-sized TiO2 coatings in a fiber-optic cable photochemical reactor. Journal of Photochemistry and Photobiology A: Chemistry, 1997, 108, 221-228.	2.0	37
160	Confocal Fluorescence Microscopy of the Morphology and Composition of Interstitial Fluids in Freezing Electrolyte Solutions. Journal of Physical Chemistry Letters, 2010, 1, 374-378.	2.1	37
161	Molecular hydrogen production from wastewater electrolysis cell with multi-junction BiOx/TiO2 anode and stainless steel cathode: Current and energy efficiency. Applied Catalysis B: Environmental, 2017, 202, 671-682.	10.8	36
162	Mixed Metal Oxide Electrodes and the Chlorine Evolution Reaction. Journal of Physical Chemistry C, 2021, 125, 20745-20761.	1.5	36

#	Article	IF	Citations
163	Thermodynamic, kinetic, and extrathermodynamic considerations in the development of equilibrium models for aquatic systems. Environmental Science & Technology, 1981, 15, 345-353.	4.6	35
164	How Phenol and Î±-Tocopherol React with Ambient Ozone at Gas/Liquid Interfaces. Journal of Physical Chemistry A, 2009, 113, 7002-7010.	1.1	35
165	Branched Polymeric Media: Boron-Chelating Resins from Hyperbranched Polyethylenimine. Environmental Science & Technology, 2012, 46, 8998-9004.	4.6	35
166	Sonolytic degradation of dimethoate: Kinetics, mechanisms and toxic intermediates controlling. Water Research, 2011, 45, 5886-5894.	5.3	34
167	Electrochemical Production of Hydrogen Coupled with the Oxidation of Arsenite. Environmental Science & Technology, 2014, 48, 2059-2066.	4.6	34
168	Rapid Detection Methods for Bacterial Pathogens in Ambient Waters at the Point of Sample Collection: A Brief Review. Clinical Infectious Diseases, 2020, 71, S84-S90.	2.9	34
169	Isotopic fractionation of carbonyl sulfide in the atmosphere: Implications for the source of background stratospheric sulfate aerosol. Geophysical Research Letters, 2002, 29, 112-1-112-4.	1.5	33
170	â€œNanofiltrationâ€•Enabled by Super-Absorbent Polymer Beads for Concentrating Microorganisms in Water Samples. Scientific Reports, 2016, 6, 20516.	1.6	33
171	Dissimilative Iron Reduction by the Marine Eubacterium Alteromonas putrefaciens Strain 200. Water Science and Technology, 1988, 20, 69-79.	1.2	33
172	A field investigation of physical and chemical mechanisms affecting pollutant concentrations in fog droplets. Tellus, Series B: Chemical and Physical Meteorology, 2022, 36, 272.	0.8	32
173	Trilayer CdS/carbon nanofiber (CNF) mat/Pt-TiO2 composite structures for solar hydrogen production: Effects of CNF mat thickness. Applied Catalysis B: Environmental, 2016, 196, 216-222.	10.8	32
174	High-Efficiency Solar Desalination Accompanying Electrocatalytic Conversions of Desalted Chloride and Captured Carbon Dioxide. ACS Sustainable Chemistry and Engineering, 2019, 7, 15320-15328.	3.2	32
175	Economically advantageous pathways for reducing greenhouse gas emissions from industrial hydrogen under common, current economic conditions. Energy and Environmental Science, 2021, 14, 1517-1529.	15.6	32
176	Trace metal catalysis in aquatic environments. Environmental Science & Technology, 1980, 14, 1061-1066.	4.6	31
177	Membrane-separated electrochemical latrine wastewater treatment. Environmental Science: Water Research and Technology, 2019, 5, 51-59.	1.2	31
178	Electrocatalytic arsenite oxidation in bicarbonate solutions combined with CO2 reduction to formate. Applied Catalysis B: Environmental, 2020, 265, 118607.	10.8	31
179	Absorption of Inhaled NO₂. Journal of Physical Chemistry B, 2009, 113, 7977-7981.	1.2	30
180	OH-Radical Specific Addition to Glutathione S-Atom at the Airâ€“Water Interface: Relevance to the Redox Balance of the Lung Epithelial Lining Fluid. Journal of Physical Chemistry Letters, 2015, 6, 3935-3943.	2.1	30

#	Article	IF	Citations
181	Enhanced photoreductive degradation of perfluorooctanesulfonate by UV irradiation in the presence of ethylenediaminetetraacetic acid. Chemical Engineering Journal, 2020, 379, 122338.	6.6	30
182	Tropospheric aerosol as a reactive intermediate. Faraday Discussions, 2013, 165, 407.	1.6	29
183	3D-Printed Flow Cells for Aptamer-Based Impedimetric Detection of E. coli Crooks Strain. Sensors, 2020, 20, 4421.	2.1	29
184	Chemical characterization of ambient aerosol collected during the northeast monsoon season over the Arabian Sea: Labile-Fe(II) and other trace metals. Journal of Geophysical Research, 2003, 108, .	3.3	28
185	Proton-assisted electron transfer and hydrogen-atom diffusion in a model system for photocatalytic hydrogen production. Communications Materials, 2020, 1, 66.	2.9	28
186	Catalytic oxidation of reduced sulfur compounds by homogeneous and heterogeneous Co(II) phthalocyanine complexes. Science of the Total Environment, 1987, 64, 99-115.	3.9	27
187	A comparison of two cloudwater/fogwater collectors: The rotating arm collector and the caltech active strand cloudwater collector. Atmospheric Environment Part A General Topics, 1990, 24, 1685-1692.	1.3	26
188	Incorporation of Quorum Sensing Inhibitors onto Reverse Osmosis Membranes for Biofouling Prevention in Seawater Desalination. Environmental Engineering Science, 2018, 35, 261-269.	0.8	25
189	Field investigations on the snow chemistry in central and southern Californiaâ€”I. Inorganic ions and hydrogen peroxide. Atmospheric Environment Part A General Topics, 1990, 24, 1661-1671.	1.3	24
190	Chemical characterization of ambient aerosol collected during the northeast monsoon season over the Arabian Sea: Anions and cations. Journal of Geophysical Research, 2004, 109, .	3.3	24
191	Heterogeneous photocatalytic degradation of ethylene glycol and propylene glycol. Korean Journal of Chemical Engineering, 2008, 25, 89-94.	1.2	23
192	Extensive H-atom abstraction from benzoate by OH-radicals at the airâ€“water interface. Physical Chemistry Chemical Physics, 2016, 18, 31505-31512.	1.3	23
193	Kinetics and mechanism of autoxidation of 2-mercaptoethanol catalyzed by cobalt(II)-4,4',4'',4'''-tetrasulfophthalocyanine in aqueous solution. Environmental Science & Technology, 1988, 22, 275-282.	4.6	22
194	Catalytic autoxidation of chemical contaminants by hybrid complexes of cobalt(II) phthalocyanine. Environmental Science & Technology, 1989, 23, 533-540.	4.6	21
195	â€œSizingâ€•Heterogeneous Chemistry in the Conversion of Gaseous Dimethyl Sulfide to Atmospheric Particles. Environmental Science & Technology, 2016, 50, 1834-1843.	4.6	21
196	Photoelectrochemical activity of CdS/Ag/TiO2 nanorod composites: Degradation of nitrobenzene coupled with the concomitant production of molecular hydrogen. Electrochimica Acta, 2019, 328, 135124.	2.6	21
197	Role of Ferryl Ion Intermediates in Fast Fenton Chemistry on Aqueous Microdroplets. Environmental Science & Technology, 2021, 55, 14370-14377.	4.6	21
198	Molecular structure effects on the kinetics of hydroxyl radical addition to azo dyes. Journal of Physical Organic Chemistry, 2002, 15, 287-292.	0.9	19

#	Article	IF	Citations
199	Electrochemical cell lysis of gram-positive and gram-negative bacteria: DNA extraction from environmental water samples. Electrochimica Acta, 2020, 338, 135864.	2.6	19
200	Lithium batteries: Improving solid-electrolyte interphases via underpotential solvent electropolymerization. Chemical Physics Letters, 2016, 661, 65-69.	1.2	18
201	Removal of Antibiotic Resistant Bacteria and Genes by UV-Assisted Electrochemical Oxidation on Degenerative TiO₂ Nanotube Arrays. ACS ES&T Engineering, 2021, 1, 612-622.	3.7	18
202	Application of Heterojunction Niâ€“Sbâ€“SnO₂ Anodes for Electrochemical Water Treatment. ACS ES&T Engineering, 2021, 1, 1236-1245.	3.7	18
203	Field investigations on the snow chemistry in central and southern californiaâ€”II. Carbonyls and carboxylic acids. Atmospheric Environment Part A General Topics, 1990, 24, 1673-1684.	1.3	17
204	In Situ-Generated Reactive Oxygen Species in Precharged Titania and Tungsten Trioxide Composite Catalyst Membrane Filters: Application to As(III) Oxidation in the Absence of Irradiation. Environmental Science & Technology, 2020, 54, 9601-9608.	4.6	17
205	Membrane-Based In-Gel Loop-Mediated Isothermal Amplification (mgLAMP) System for SARS-CoV-2 Quantification in Environmental Waters. Environmental Science & Technology, 2022, 56, 862-873.	4.6	16
206	Selective transport of aldehydes across an anion-exchange membrane via the formation of bisulfite adducts. Industrial & Engineering Chemistry Research, 1990, 29, 857-861.	1.8	15
207	Kinetics of microwave-enhanced oxidation of phenol by hydrogen peroxide. Frontiers of Environmental Science and Engineering in China, 2011, 5, 57-64.	0.8	15
208	Sunlight-Activated Propidium Monoazide Pretreatment for Differentiation of Viable and Dead Bacteria by Quantitative Real-Time Polymerase Chain Reaction. Environmental Science and Technology Letters, 2016, 3, 57-61.	3.9	15
209	Alteration of the Magnetic Properties of Aquaspirillum magnetotacticum by a Pulse Magnetization Technique. Applied and Environmental Microbiology, 1991, 57, 3248-3254.	1.4	15
210	The Sonolytic Destruction of Methyl tert -Butyl Ether Present in Contaminated Groundwater. Water Environment Research, 2002, 74, 545-556.	1.3	14
211	Quantum chemical insights into the dissociation of nitric acid on the surface of aqueous electrolytes. International Journal of Quantum Chemistry, 2013, 113, 413-417.	1.0	14
212	Transformation and fate of organic esters in layered-flow systems: the role of trace metal catalysis. Environmental Science & Technology, 1984, 18, 756-764.	4.6	13
213	Mixed-Metal Semiconductor Anodes for Electrochemical Water Splitting and Reactive Chlorine Species Generation: Implications for Electrochemical Wastewater Treatment. Catalysts, 2016, 6, 59.	1.6	13
214	Enhanced chlorine evolution from dimensionally stable anode by heterojunction with Ti and Bi based mixed metal oxide layers prepared from nanoparticle slurry. Journal of Catalysis, 2020, 389, 1-8.	3.1	13
215	Photocatalytic H₂ production on trititanate nanotubes coupled with CdS and platinum nanoparticles under visible light: revisiting H₂ production and material durability. Faraday Discussions, 2017, 198, 419-431.	1.6	12
216	Photochemical transformation of perfluoroalkyl acid precursors in water using engineered nanomaterials. Water Research, 2020, 181, 115964.	5.3	12

#	Article	IF	Citations
217	Propidium monoazide pretreatment on a 3D-printed microfluidic device for efficient PCR determination of â€˜liveversusdeadâ€™ microbial cells. Environmental Science: Water Research and Technology, 2018, 4, 956-963.	1.2	11
218	Single-Cell Phenotypic Analysis and Digital Molecular Detection Linkable by a Hydrogel Bead-Based Platform. ACS Applied Bio Materials, 2021, 4, 2664-2674.	2.3	11
219	Development of a computer-generated equilibrium model for the variation of iron and manganese in the hypolimnion of Lake Mendota. Environmental Science & Technology, 1981, 15, 339-344.	4.6	10
220	Kinetics of the formation of hydroxyacetaldehyde-sulfur(IV) adducts at low pH. Environmental Science & Technology, 1988, 22, 1284-1289.	4.6	10
221	Porous carbon monoliths for electrochemical removal of aqueous herbicides by â€œone-stopâ€•catalysis of oxygen reduction and H2O2 activation. Journal of Hazardous Materials, 2021, 414, 125592.	6.5	9
222	Halogen Radical Chemistry at Aqueous Interfaces. Journal of Physical Chemistry A, 2016, 120, 6242-6248.	1.1	8
223	Diamond electrode facilitated electrosynthesis of water and wastewater treatment oxidants. Current Opinion in Electrochemistry, 2022, 32, 100899.	2.5	8
224	Onsite Graywater Treatment in a Two-Stage Electro-Peroxone Reactor with a Partial Recycle of Treated Effluent. ACS ES&T Engineering, 2021, 1, 1659-1667.	3.7	6
225	Electroflotation clarifier to enhance nitrogen removal in a two-stage alternating aeration bioreactor. Environmental Technology (United Kingdom), 2013, 34, 2765-2772.	1.2	5
226	Progress and prospect of anodic oxidation for the remediation of perfluoroalkyl and polyfluoroalkyl substances in water and wastewater using diamond electrodes. Current Opinion in Electrochemistry, 2021, 30, 100865.	2.5	5
227	Lithium Dendrite Growth Control Using Local Temperature Variation. Materials Research Society Symposia Proceedings, 2014, 1680, 13.	0.1	4
228	Iodide Accelerates the Processing of Biogenic Monoterpene Emissions on Marine Aerosols. ACS Omega, 2019, 4, 7574-7580.	1.6	4
229	Active Transport of Formaldehyde through an Anion-Exchange Membrane via the Formation of Bisulfite Adduct. Chemistry Letters, 1988, 17, 597-600.	0.7	3
230	Spatial and temporal variations in precipitation and cloud interception in the Sierra Nevada of central California. Tellus, Series B: Chemical and Physical Meteorology, 1991, 43, 390-400.	0.8	2
231	Speech-generated aerosol settling times and viral viability can improve COVID-19 transmission prediction. Environmental Science Atmospheres, 2022, 2, 34-45.	0.9	2
232	Important unresolved problems in marine chemistry. Applied Geochemistry, 1988, 3, 61-62.	1.4	1
233	Photoreduction of iron oxyhydroxides in the presence of halogenated acetic acids: Implications for tropospheric chemistry. Journal of Aerosol Science, 1995, 26, S445-S446.	1.8	0
234	R. M. Harrison and S. J. De Mora: Introductory Chemistry for the Environmental Sciences. Journal of Atmospheric Chemistry, 2000, 35, 322-324.	1.4	0

#	Article	IF	Citations
235	TROPOSPHERIC AQUEOUS PHASE CHEMISTRY: KINETICS AND MECHANISMS. Journal of Aerosol Science, 2001, 32, 59-60.	1.8	0
236	James J. Morgan: Special Tribute Issue. Environmental Science & Technology, 2021, 55, 14331-14332.	4.6	0