Priv-Dozâ€dr Thomas B Hofstetter

List of Publications by Year
in descending order

101 papers	9,305 citations	57758 44 h-index	38395 95 g-index
105 all docs	105 docs citations	105 times ranked	10400 citing authors

#	ARTICLE	IF	CITATIONS
1	The Challenge of Micropollutants in Aquatic Systems. Science, 2006, 313, 1072-1077.	12.6	2,873
2	Global Water Pollution and Human Health. Annual Review of Environment and Resources, 2010, 35, 109-136.	13.4	1,381
3	Complete Reduction of TNT and Other (Poly)nitroaromatic Compounds under Iron-Reducing Subsurface Conditions. Environmental Science & Technology, 1999, 33, 1479-1487.	10.0	254
4	Current challenges in compound-specific stable isotope analysis of environmental organic contaminants. Analytical and Bioanalytical Chemistry, 2012, 403, 2471-2491.	3.7	234
5	Reactivity of Fe(II) Species Associated with Clay Minerals. Environmental Science & Technology, 2003, 37, 519-528.	10.0	219
6	Redox Behavior of Magnetite: Implications for Contaminant Reduction. Environmental Science & Technology, 2010, 44, 55-60.	10.0	195
7	Discounting and the environment should current impacts be weighted differently than impacts harming future generations?. International Journal of Life Cycle Assessment, 2003, 8, 8.	4.7	137
8	Reduction of Nitroaromatic Compounds by Fe(II) Species Associated with Iron-Rich Smectites. Environmental Science & Technology, 2006, 40, 235-242.	10.0	134
9	Compound-Specific Nitrogen and Carbon Isotope Analysis of Nitroaromatic Compounds in Aqueous Samples Using Solid-Phase Microextraction Coupled to GC/IRMS. Analytical Chemistry, 2007, 79, 2386-2393.	6.5	133
10	Redox Properties of Structural Fe in Clay Minerals: 3. Relationships between Smectite Redox and Structural Properties. Environmental Science & Technology, 2013, 47, 13477-13485.	10.0	131
11	Redox Properties of Structural Fe in Clay Minerals. 1. Electrochemical Quantification of Electron-Donating and -Accepting Capacities of Smectites. Environmental Science & Technology, 2012, 46, 9360-9368.	10.0	125
12	Characterization of Predominant Reductants in an Anaerobic Leachate-Contaminated Aquifer by Nitroaromatic Probe Compounds. Environmental Science & Technology, 1998, 32, 23-31.	10.0	121
13	Assessing transformation processes of organic contaminants by compound-specific stable isotope analysis. TrAC - Trends in Analytical Chemistry, 2011, 30, 618-627.	11.4	121
14	Electrochemical Analyses of Redox-Active Iron Minerals: A Review of Nonmediated and Mediated Approaches. Environmental Science & Technology, 2015, 49, 5862-5878.	10.0	120
15	Redox Properties of Structural Fe in Clay Minerals. 2. Electrochemical and Spectroscopic Characterization of Electron Transfer Irreversibility in Ferruginous Smectite, SWa-1. Environmental Science & Technology, 2012, 46, 9369-9377.	10.0	115
16	Thermodynamic Characterization of Iron Oxideâ€“Aqueous Fe²⁺ Redox Couples. Environmental Science & Technology, 2016, 50, 8538-8547.	10.0	106
17	Evaluation of redox-active iron sites in smectites using middle and near infrared spectroscopy. Geochimica Et Cosmochimica Acta, 2011, 75, 2336-2355.	3.9	104
18	Production of fine and speciality chemicals: procedure for the estimation of LCIs. International Journal of Life Cycle Assessment, 2004, 9, 101-113.	4.7	103

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19	Biotransformation of Benzotriazoles: Insights from Transformation Product Identification and Compound-Specific Isotope Analysis. Environmental Science & Technology, 2014, 48, 4435-4443.	10.0	101
20	Assessing the Redox Reactivity of Structural Iron in Smectites Using Nitroaromatic Compounds As Kinetic Probes. Environmental Science & Technology, 2008, 42, 8381-8387.	10.0	91
21	Assessing Transformation Processes of Organic Compounds Using Stable Isotope Fractionation. Environmental Science & Technology, 2008, 42, 7737-7743.	10.0	90
22	Reduction of Polychlorinated Ethanes and Carbon Tetrachloride by Structural Fe(II) in Smectites. Environmental Science & Technology, 2009, 43, 4082-4089.	10.0	89
23	Iron isotope fractionation and atom exchange during sorption of ferrous iron to mineral surfaces. Geochimica Et Cosmochimica Acta, 2009, 73, 1795-1812.	3.9	82
24	Carbon, Hydrogen, and Nitrogen Isotope Fractionation During Light-Induced Transformations of Atrazine. Environmental Science & Technology, 2008, 42, 7751-7756.	10.0	78
25	Identifying Competing Aerobic Nitrobenzene Biodegradation Pathways by Compound-Specific Isotope Analysis. Environmental Science & Technology, 2008, 42, 4764-4770.	10.0	74
26	Modeling Waste Incineration for Life-Cycle Inventory Analysis in Switzerland. Environmental Modeling and Assessment, 2001, 6, 219-235.	2.2	70
27	Quantifying In Situ Transformation Rates of Chlorinated Ethenes by Combining Compound-Specific Stable Isotope Analysis, Groundwater Dating, And Carbon Isotope Mass Balances. Environmental Science & Technology, 2010, 44, 3705-3711.	10.0	68
28	Using Nitrogen Isotope Fractionation To Assess Abiotic Reduction of Nitroaromatic Compounds. Environmental Science & Technology, 2006, 40, 7710-7716.	10.0	67
29	Carbon and Chlorine Isotope Effects During Abiotic Reductive Dechlorination of Polychlorinated Ethanes. Environmental Science & Technology, 2007, 41, 4662-4668.	10.0	63
30	Influence of Mass-Transfer Limitations on Carbon Isotope Fractionation during Microbial Dechlorination of Trichloroethene. Environmental Science & Technology, 2009, 43, 8813-8820.	10.0	63
31	Life cycle inventory for thermal treatment of waste solvent from chemical industry: a multi-input allocation model. Journal of Cleaner Production, 2005, 13, 1211-1224.	9.3	62
32	Electrochemical Analysis of Changes in Iron Oxide Reducibility during Abiotic Ferrihydrite Transformation into Goethite and Magnetite. Environmental Science & Technology, 2019, 53, 3568-3578.	10.0	60
33	Substituent Effects on Nitrogen Isotope Fractionation During Abiotic Reduction of Nitroaromatic Compounds. Environmental Science & Technology, 2008, 42, 1997-2003.	10.0	59
34	Linking Thermodynamics to Pollutant Reduction Kinetics by Fe²⁺ Bound to Iron Oxides. Environmental Science & Technology, 2018, 52, 5600-5609.	10.0	59
35	Evaluation of Functional Groups Responsible for Chloroform Formation during Water Chlorination Using Compound Specific Isotope Analysis. Environmental Science & Technology, 2008, 42, 7778-7785.	10.0	58
36	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.	10.0	58

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37	Variability of Nitrogen Isotope Fractionation during the Reduction of Nitroaromatic Compounds with Dissolved Reductants. Environmental Science & Technology, 2008, 42, 8352-8359.	10.0	55
38	Iron-Mediated Microbial Oxidation and Abiotic Reduction of Organic Contaminants under Anoxic Conditions. Environmental Science & Technology, 2007, 41, 7765-7772.	10.0	52
39	Carbon and Hydrogen Isotope Fractionation during Anaerobic Toluene Oxidation by Geobacter metallireducens with Different Fe(III) Phases as Terminal Electron Acceptors. Environmental Science & Technology, 2008, 42, 7786-7792.	10.0	52
40	Decreases in Iron Oxide Reducibility during Microbial Reductive Dissolution and Transformation of Ferrihydrite. Environmental Science & Technology, 2019, 53, 8736-8746.	10.0	52
41	Simultaneous quantification of polar and non-polar volatile organic compounds in water samples by direct aqueous injection-gas chromatography/mass spectrometry. Journal of Chromatography A, 2008, 1181, 116-124.	3.7	49
42	Assessing Iron-Mediated Oxidation of Toluene and Reduction of Nitroaromatic Contaminants in Anoxic Environments Using Compound-Specific Isotope Analysis. Environmental Science & Technology, 2007, 41, 7773-7780.	10.0	46
43	Using Compound-Specific Isotope Analysis to Assess Biodegradation of Nitroaromatic Explosives in the Subsurface. Environmental Science & Technology, 2013, 47, 6872-6883.	10.0	46
44	Time-dependent life-cycle assessment of slag landfills with the help of scenario analysis: the example of Cd and Cu. Journal of Cleaner Production, 2005, 13, 301-320.	9.3	44
45	pH-Dependent Equilibrium Isotope Fractionation Associated with the Compound Specific Nitrogen and Carbon Isotope Analysis of Substituted Anilines by SPME-GC/IRMS. Analytical Chemistry, 2011, 83, 1641-1648.	6.5	44
46	Solid-phase extraction method for stable isotope analysis of pesticides from large volume environmental water samples. Analyst, The, 2019, 144, 2898-2908.	3.5	42
47	Using Nitrogen Isotope Fractionation to Assess the Oxidation of Substituted Anilines by Manganese Oxide. Environmental Science & Technology, 2011, 45, 5596-5604.	10.0	37
48	Isotopic Analysis of Oxidative Pollutant Degradation Pathways Exhibiting Large H Isotope Fractionation. Environmental Science & Technology, 2013, 47, 13459-13468.	10.0	37
49	Site-dependent fate assessment in LCA: transport of heavy metals in soil. Journal of Cleaner Production, 2005, 13, 341-361.	9.3	36
50	Compound-specific isotope analysis of benzotriazole and its derivatives. Analytical and Bioanalytical Chemistry, 2013, 405, 2843-2856.	3.7	36
51	Mediated Electrochemical Reduction of Iron (Oxyhydr-)Oxides under Defined Thermodynamic Boundary Conditions. Environmental Science & Technology, 2018, 52, 560-570.	10.0	35
52	Environmentally Preferable Treatment Options for Industrial Waste Solvent Management. Chemical Engineering Research and Design, 2003, 81, 189-202.	5.6	31
53	Current Perspectives on the Mechanisms of Chlorohydrocarbon Degradation in Subsurface Environments: Insight from Kinetics, Product Formation, Probe Molecules, and Isotope Fractionation. ACS Symposium Series, 2011, , 407-439.	0.5	29
54	Carbon, Hydrogen, and Nitrogen Isotope Fractionation Associated with Oxidative Transformation of Substituted Aromatic N-Alkyl Amines. Environmental Science & Technology, 2012, 46, 7189-7198.	10.0	29

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55	Carbon and Nitrogen Isotope Effects Associated with the Dioxygenation of Aniline and Diphenylamine. Environmental Science & Technology, 2012, 46, 11844-11853.	10.0	28
56	Compound-Specific Carbon, Nitrogen, and Hydrogen Isotope Analysis of N-Nitrosodimethylamine in Aqueous Solutions. Analytical Chemistry, 2015, 87, 2916-2924.	6.5	28
57	Isotope Fractionation Associated with the Direct Photolysis of 4-Chloroaniline. Environmental Science & Technology, 2015, 49, 4263-4273.	10.0	28
58	Isotope Fractionation Associated with the Photochemical Dechlorination of Chloroanilines. Environmental Science & Technology, 2015, 49, 9797-9806.	10.0	28
59	Substrate and Enzyme Specificity of the Kinetic Isotope Effects Associated with the Dioxygenation of Nitroaromatic Contaminants. Environmental Science & Technology, 2016, 50, 6708-6716.	10.0	27
60	Isotope Fractionation Associated with the Biodegradation of 2- and 4-Nitrophenols via Monooxygenation Pathways. Environmental Science & Technology, 2013, 47, 14185-14193.	10.0	26
61	Isotope Effects of Enzymatic Dioxygenation of Nitrobenzene and 2-Nitrotoluene by Nitrobenzene Dioxygenase. Environmental Science & Technology, 2014, 48, 10750-10759.	10.0	24
62	Molecularly Imprinted Polymers for Compound-Specific Isotope Analysis of Polar Organic Micropollutants in Aquatic Environments. Analytical Chemistry, 2018, 90, 7292-7301.	6.5	23
63	Kinetic Isotope Effects of the Enzymatic Transformation of Î³-Hexachlorocyclohexane by the Lindane Dehydrochlorinase Variants LinA1 and LinA2. Environmental Science & Technology, 2019, 53, 2353-2363.	10.0	23
64	Redox Properties of Structural Fe in Smectite Clay Minerals. ACS Symposium Series, 2011, , 361-379.	0.5	22
65	Amino acid nitrogen isotopic composition patterns in lacustrine sedimenting matter. Geochimica Et Cosmochimica Acta, 2013, 121, 328-338.	3.9	22
66	Assessing Aerobic Biotransformation of Hexachlorocyclohexane Isomers by Compound-Specific Isotope Analysis. Environmental Science & Technology, 2019, 53, 7419-7431.	10.0	20
67	Triple-Element Compound-Specific Stable Isotope Analysis (3D-CSIA): Added Value of Cl Isotope Ratios to Assess Herbicide Degradation. Environmental Science & Technology, 2021, 55, 13891-13901.	10.0	20
68	¹³C- and ¹⁵N-Isotope Analysis of Desphenylchloridazon by Liquid Chromatographyâ€“Isotope-Ratio Mass Spectrometry and Derivatization Gas Chromatographyâ€“Isotope-Ratio Mass Spectrometry. Analytical Chemistry, 2019, 91, 3412-3420.	6.5	18
69	Exploring Trends of C and N Isotope Fractionation to Trace Transformation Reactions of Diclofenac in Natural and Engineered Systems. Environmental Science & Technology, 2016, 50, 10933-10942.	10.0	17
70	Assessment of 2,4-Dinitroanisole Transformation Using Compound-Specific Isotope Analysis after In Situ Chemical Reduction of Iron Oxides. Environmental Science & Technology, 2020, 54, 5520-5531.	10.0	17
71	Isotope Fractionation Associated with the Indirect Photolysis of Substituted Anilines in Aqueous Solution. Environmental Science & Technology, 2015, 49, 12766-12773.	10.0	16
72	Enzyme Kinetics of Different Types of Flavin-Dependent Monooxygenases Determine the Observable Contaminant Stable Isotope Fractionation. Environmental Science and Technology Letters, 2015, 2, 329-334.	8.7	16

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73	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.	10.0	16
74	Efficiency of monolaurin in mitigating ruminal methanogenesis and modifying C-isotope fractionation when incubating diets composed of either C₃or C₄plants in a rumen simulation technique (Rusitec) system. British Journal of Nutrition, 2009, 102, 1308-1317.	2.3	15
75	Life-Cycle Assessment in Pesticide Product Development:Â Methods and Case Study on Two Plant-Growth Regulators from Different Product Generations. Environmental Science & Technology, 2005, 39, 2406-2413.	10.0	14
76	Dual-Element Isotope Analysis of Desphenylchloridazon to Investigate Its Environmental Fate in a Systematic Field Study: A Long-Term Lysimeter Experiment. Environmental Science & Technology, 2020, 54, 3929-3939.	10.0	14
77	Thermodynamic controls on rates of iron oxide reduction by extracellular electron shuttles. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	14
78	Isotope Effects as New Proxies for Organic Pollutant Transformation. Chimia, 2014, 68, 788.	0.6	12
79	Different Mechanisms of Alkaline and Enzymatic Hydrolysis of the Insensitive Munition Component 2,4-Dinitroanisole Lead to Identical Products. Environmental Science and Technology Letters, 2018, 5, 456-461.	8.7	12
80	Carbon Isotope Fractionation of Substituted Benzene Analogs during Oxidation with Ozone and Hydroxyl Radicals: How Should Experimental Data Be Interpreted?. Environmental Science & Technology, 2020, 54, 6713-6722.	10.0	12
81	Measurement of oxygen isotope ratios (¹⁸O/¹⁶O) of aqueous O₂ in small samples by gas chromatography/isotope ratio mass spectrometry. Rapid Communications in Mass Spectrometry, 2016, 30, 684-690.	1.5	11
82	Adsorbing vs. Nonadsorbing Tracers for Assessing Pesticide Transport in Arable Soils. Vadose Zone Journal, 2018, 17, 1-18.	2.2	11
83	Role of Carbonate in Thermodynamic Relationships Describing Pollutant Reduction Kinetics by Iron Oxide-Bound Fe²⁺. Environmental Science & Technology, 2020, 54, 10109-10117.	10.0	10
84	Why Was My Paper Rejected without Review?. Environmental Science & Technology, 2020, 54, 11641-11644.	10.0	10
85	Exploring the Utility of Compound-Specific Isotope Analysis for Assessing Ferrous Iron-Mediated Reduction of RDX in the Subsurface. Environmental Science & Technology, 2021, 55, 6752-6763.	10.0	10
86	Substrate-Specific Coupling of O₂ Activation to Hydroxylations of Aromatic Compounds by Rieske Non-heme Iron Dioxygenases. ACS Catalysis, 2022, 12, 6444-6456.	11.2	10
87	Characterization of Substrate, Cosubstrate, and Product Isotope Effects Associated With Enzymatic Oxygenations of Organic Compounds Based on Compound-Specific Isotope Analysis. Methods in Enzymology, 2017, 596, 291-329.	1.0	9
88	Isotope fractionation associated with the simultaneous biodegradation of multiple nitrophenol isomers by Pseudomonas putida B2. Environmental Sciences: Processes and Impacts, 2017, 19, 775-784.	3.5	8
89	Tracking transformation processes of organic micropollutants in aquatic environments using multi-element isotope fractionation analysis. Applied Geochemistry, 2011, 26, S334-S336.	3.0	7
90	Elucidating the Role of O₂ Uncoupling in the Oxidative Biodegradation of Organic Contaminants by Rieske Non-heme Iron Dioxygenases. ACS Environmental Au, 2022, 2, 428-440.	7.0	7

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91	Assessing the redox properties of iron-bearing clay minerals using homogeneous electrocatalysis. Applied Geochemistry, 2011, 26, S191-S193.	3.0	6
92	A DFT study of permanganate oxidation of toluene and its ortho-nitroderivatives. Journal of Molecular Modeling, 2014, 20, 2091.	1.8	6
93	From medieval land clearing to industrial development: 800 years of human-impact history in the Joux Valley (Swiss Jura). Holocene, 2017, 27, 1443-1454.	1.7	6
94	Enzyme Kinetics of Organic Contaminant Oxygenations. Chimia, 2020, 74, 108.	0.6	6
95	The apparently unreactive substrate facilitates the electron transfer for dioxygen activation in Rieske dioxygenases. Chemistry - A European Journal, 2022, , .	3.3	6
96	Î´¹⁵N Enrichment Suggests Possible Source for Halogenated 1â€²-Methyl-1,2â€²-bipyrroles (MBPs). Environmental Science & Technology, 2012, 46, 2064-2070.	10.0	5
97	Mineral identity, natural organic matter, and repeated contaminant exposures do not affect the carbon and nitrogen isotope fractionation of 2,4-dinitroanisole during abiotic reduction. Environmental Sciences: Processes and Impacts, 2019, 21, 51-62.	3.5	4
98	Fate of Four Herbicides in an Irrigated Field Cropped with Corn: Lysimeter Experiments. Procedia Earth and Planetary Science, 2015, 13, 158-161.	0.6	3
99	Managing argon interference during measurements of 18O/16O ratios in O2 by continuous-flow isotope ratio mass spectrometry. Analytical and Bioanalytical Chemistry, 2022, 414, 6177-6186.	3.7	3
100	New methods for the environmental chemistâ€™s toolbox. Environmental Science & Technology, 2008, 42, 7727-7727.	10.0	1
101	A Tribute to RenÃ© P. Schwarzenbach. Environmental Science & Technology, 2013, 47, 6725-6727.	10.0	0