

# Priv-Dozent Thomas B Hofstetter

## List of Publications by Year in descending order

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101  
papers

9,305  
citations

66250

44  
h-index

43601

95  
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105  
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105  
docs citations

105  
times ranked

11711  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Challenge of Micropollutants in Aquatic Systems. <i>Science</i> , 2006, 313, 1072-1077.	6.0	2,873
2	Global Water Pollution and Human Health. <i>Annual Review of Environment and Resources</i> , 2010, 35, 109-136.	5.6	1,381
3	Complete Reduction of TNT and Other (Poly)nitroaromatic Compounds under Iron-Reducing Subsurface Conditions. <i>Environmental Science &amp; Technology</i> , 1999, 33, 1479-1487.	4.6	254
4	Current challenges in compound-specific stable isotope analysis of environmental organic contaminants. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 403, 2471-2491.	1.9	234
5	Reactivity of Fe(II) Species Associated with Clay Minerals. <i>Environmental Science &amp; Technology</i> , 2003, 37, 519-528.	4.6	219
6	Redox Behavior of Magnetite: Implications for Contaminant Reduction. <i>Environmental Science &amp; Technology</i> , 2010, 44, 55-60.	4.6	195
7	Discounting and the environment should current impacts be weighted differently than impacts harming future generations?. <i>International Journal of Life Cycle Assessment</i> , 2003, 8, 8.	2.2	137
8	Reduction of Nitroaromatic Compounds by Fe(II) Species Associated with Iron-Rich Smectites. <i>Environmental Science &amp; Technology</i> , 2006, 40, 235-242.	4.6	134
9	Compound-Specific Nitrogen and Carbon Isotope Analysis of Nitroaromatic Compounds in Aqueous Samples Using Solid-Phase Microextraction Coupled to GC/IRMS. <i>Analytical Chemistry</i> , 2007, 79, 2386-2393.	3.2	133
10	Redox Properties of Structural Fe in Clay Minerals: 3. Relationships between Smectite Redox and Structural Properties. <i>Environmental Science &amp; Technology</i> , 2013, 47, 13477-13485.	4.6	131
11	Redox Properties of Structural Fe in Clay Minerals. 1. Electrochemical Quantification of Electron-Donating and -Accepting Capacities of Smectites. <i>Environmental Science &amp; Technology</i> , 2012, 46, 9360-9368.	4.6	125
12	Characterization of Predominant Reductants in an Anaerobic Leachate-Contaminated Aquifer by Nitroaromatic Probe Compounds. <i>Environmental Science &amp; Technology</i> , 1998, 32, 23-31.	4.6	121
13	Assessing transformation processes of organic contaminants by compound-specific stable isotope analysis. <i>TrAC - Trends in Analytical Chemistry</i> , 2011, 30, 618-627.	5.8	121
14	Electrochemical Analyses of Redox-Active Iron Minerals: A Review of Nonmediated and Mediated Approaches. <i>Environmental Science &amp; Technology</i> , 2015, 49, 5862-5878.	4.6	120
15	Redox Properties of Structural Fe in Clay Minerals. 2. Electrochemical and Spectroscopic Characterization of Electron Transfer Irreversibility in Ferruginous Smectite, SWa-1. <i>Environmental Science &amp; Technology</i> , 2012, 46, 9369-9377.	4.6	115
16	Thermodynamic Characterization of Iron Oxide- <sup>2+</sup> Aqueous Fe <sup>2+</sup> Redox Couples. <i>Environmental Science &amp; Technology</i> , 2016, 50, 8538-8547.	4.6	106
17	Evaluation of redox-active iron sites in smectites using middle and near infrared spectroscopy. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 2336-2355.	1.6	104
18	Production of fine and speciality chemicals: procedure for the estimation of LCIs. <i>International Journal of Life Cycle Assessment</i> , 2004, 9, 101-113.	2.2	103

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19	Biotransformation of Benzotriazoles: Insights from Transformation Product Identification and Compound-Specific Isotope Analysis. <i>Environmental Science &amp; Technology</i> , 2014, 48, 4435-4443.	4.6	101
20	Assessing the Redox Reactivity of Structural Iron in Smectites Using Nitroaromatic Compounds As Kinetic Probes. <i>Environmental Science &amp; Technology</i> , 2008, 42, 8381-8387.	4.6	91
21	Assessing Transformation Processes of Organic Compounds Using Stable Isotope Fractionation. <i>Environmental Science &amp; Technology</i> , 2008, 42, 7737-7743.	4.6	90
22	Reduction of Polychlorinated Ethanes and Carbon Tetrachloride by Structural Fe(II) in Smectites. <i>Environmental Science &amp; Technology</i> , 2009, 43, 4082-4089.	4.6	89
23	Iron isotope fractionation and atom exchange during sorption of ferrous iron to mineral surfaces. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 1795-1812.	1.6	82
24	Carbon, Hydrogen, and Nitrogen Isotope Fractionation During Light-Induced Transformations of Atrazine. <i>Environmental Science &amp; Technology</i> , 2008, 42, 7751-7756.	4.6	78
25	Identifying Competing Aerobic Nitrobenzene Biodegradation Pathways by Compound-Specific Isotope Analysis. <i>Environmental Science &amp; Technology</i> , 2008, 42, 4764-4770.	4.6	74
26	Modeling Waste Incineration for Life-Cycle Inventory Analysis in Switzerland. <i>Environmental Modeling and Assessment</i> , 2001, 6, 219-235.	1.2	70
27	Quantifying In Situ Transformation Rates of Chlorinated Ethenes by Combining Compound-Specific Stable Isotope Analysis, Groundwater Dating, And Carbon Isotope Mass Balances. <i>Environmental Science &amp; Technology</i> , 2010, 44, 3705-3711.	4.6	68
28	Using Nitrogen Isotope Fractionation To Assess Abiotic Reduction of Nitroaromatic Compounds. <i>Environmental Science &amp; Technology</i> , 2006, 40, 7710-7716.	4.6	67
29	Carbon and Chlorine Isotope Effects During Abiotic Reductive Dechlorination of Polychlorinated Ethanes. <i>Environmental Science &amp; Technology</i> , 2007, 41, 4662-4668.	4.6	63
30	Influence of Mass-Transfer Limitations on Carbon Isotope Fractionation during Microbial Dechlorination of Trichloroethene. <i>Environmental Science &amp; Technology</i> , 2009, 43, 8813-8820.	4.6	63
31	Life cycle inventory for thermal treatment of waste solvent from chemical industry: a multi-input allocation model. <i>Journal of Cleaner Production</i> , 2005, 13, 1211-1224.	4.6	62
32	Electrochemical Analysis of Changes in Iron Oxide Reducibility during Abiotic Ferrihydrite Transformation into Goethite and Magnetite. <i>Environmental Science &amp; Technology</i> , 2019, 53, 3568-3578.	4.6	60
33	Substituent Effects on Nitrogen Isotope Fractionation During Abiotic Reduction of Nitroaromatic Compounds. <i>Environmental Science &amp; Technology</i> , 2008, 42, 1997-2003.	4.6	59
34	Linking Thermodynamics to Pollutant Reduction Kinetics by Fe <sup>2+</sup> Bound to Iron Oxides. <i>Environmental Science &amp; Technology</i> , 2018, 52, 5600-5609.	4.6	59
35	Evaluation of Functional Groups Responsible for Chloroform Formation during Water Chlorination Using Compound Specific Isotope Analysis. <i>Environmental Science &amp; Technology</i> , 2008, 42, 7778-7785.	4.6	58
36	Formation of <i>N</i> -Nitrosodimethylamine during Chloramination of Secondary and Tertiary Amines: Role of Molecular Oxygen and Radical Intermediates. <i>Environmental Science &amp; Technology</i> , 2017, 51, 280-290.	4.6	58

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37	Variability of Nitrogen Isotope Fractionation during the Reduction of Nitroaromatic Compounds with Dissolved Reductants. <i>Environmental Science &amp; Technology</i> , 2008, 42, 8352-8359.	4.6	55
38	Iron-Mediated Microbial Oxidation and Abiotic Reduction of Organic Contaminants under Anoxic Conditions. <i>Environmental Science &amp; Technology</i> , 2007, 41, 7765-7772.	4.6	52
39	Carbon and Hydrogen Isotope Fractionation during Anaerobic Toluene Oxidation by <i>Geobacter metallireducens</i> with Different Fe(III) Phases as Terminal Electron Acceptors. <i>Environmental Science &amp; Technology</i> , 2008, 42, 7786-7792.	4.6	52
40	Decreases in Iron Oxide Reducibility during Microbial Reductive Dissolution and Transformation of Ferrihydrite. <i>Environmental Science &amp; Technology</i> , 2019, 53, 8736-8746.	4.6	52
41	Simultaneous quantification of polar and non-polar volatile organic compounds in water samples by direct aqueous injection-gas chromatography/mass spectrometry. <i>Journal of Chromatography A</i> , 2008, 1181, 116-124.	1.8	49
42	Assessing Iron-Mediated Oxidation of Toluene and Reduction of Nitroaromatic Contaminants in Anoxic Environments Using Compound-Specific Isotope Analysis. <i>Environmental Science &amp; Technology</i> , 2007, 41, 7773-7780.	4.6	46
43	Using Compound-Specific Isotope Analysis to Assess Biodegradation of Nitroaromatic Explosives in the Subsurface. <i>Environmental Science &amp; Technology</i> , 2013, 47, 6872-6883.	4.6	46
44	Time-dependent life-cycle assessment of slag landfills with the help of scenario analysis: the example of Cd and Cu. <i>Journal of Cleaner Production</i> , 2005, 13, 301-320.	4.6	44
45	pH-Dependent Equilibrium Isotope Fractionation Associated with the Compound Specific Nitrogen and Carbon Isotope Analysis of Substituted Anilines by SPME-GC/IRMS. <i>Analytical Chemistry</i> , 2011, 83, 1641-1648.	3.2	44
46	Solid-phase extraction method for stable isotope analysis of pesticides from large volume environmental water samples. <i>Analyst</i> , 2019, 144, 2898-2908.	1.7	42
47	Using Nitrogen Isotope Fractionation to Assess the Oxidation of Substituted Anilines by Manganese Oxide. <i>Environmental Science &amp; Technology</i> , 2011, 45, 5596-5604.	4.6	37
48	Isotopic Analysis of Oxidative Pollutant Degradation Pathways Exhibiting Large H Isotope Fractionation. <i>Environmental Science &amp; Technology</i> , 2013, 47, 13459-13468.	4.6	37
49	Site-dependent fate assessment in LCA: transport of heavy metals in soil. <i>Journal of Cleaner Production</i> , 2005, 13, 341-361.	4.6	36
50	Compound-specific isotope analysis of benzotriazole and its derivatives. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 2843-2856.	1.9	36
51	Mediated Electrochemical Reduction of Iron (Oxyhydr-)Oxides under Defined Thermodynamic Boundary Conditions. <i>Environmental Science &amp; Technology</i> , 2018, 52, 560-570.	4.6	35
52	Environmentally Preferable Treatment Options for Industrial Waste Solvent Management. <i>Chemical Engineering Research and Design</i> , 2003, 81, 189-202.	2.7	31
53	Current Perspectives on the Mechanisms of Chlorohydrocarbon Degradation in Subsurface Environments: Insight from Kinetics, Product Formation, Probe Molecules, and Isotope Fractionation. <i>ACS Symposium Series</i> , 2011, , 407-439.	0.5	29
54	Carbon, Hydrogen, and Nitrogen Isotope Fractionation Associated with Oxidative Transformation of Substituted Aromatic <i>N</i> -Alkyl Amines. <i>Environmental Science &amp; Technology</i> , 2012, 46, 7189-7198.	4.6	29

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55	Carbon and Nitrogen Isotope Effects Associated with the Dioxygenation of Aniline and Diphenylamine. <i>Environmental Science &amp; Technology</i> , 2012, 46, 11844-11853.	4.6	28
56	Compound-Specific Carbon, Nitrogen, and Hydrogen Isotope Analysis of <i>N</i> -Nitrosodimethylamine in Aqueous Solutions. <i>Analytical Chemistry</i> , 2015, 87, 2916-2924.	3.2	28
57	Isotope Fractionation Associated with the Direct Photolysis of 4-Chloroaniline. <i>Environmental Science &amp; Technology</i> , 2015, 49, 4263-4273.	4.6	28
58	Isotope Fractionation Associated with the Photochemical Dechlorination of Chloroanilines. <i>Environmental Science &amp; Technology</i> , 2015, 49, 9797-9806.	4.6	28
59	Substrate and Enzyme Specificity of the Kinetic Isotope Effects Associated with the Dioxygenation of Nitroaromatic Contaminants. <i>Environmental Science &amp; Technology</i> , 2016, 50, 6708-6716.	4.6	27
60	Isotope Fractionation Associated with the Biodegradation of 2- and 4-Nitrophenols via Monooxygenation Pathways. <i>Environmental Science &amp; Technology</i> , 2013, 47, 14185-14193.	4.6	26
61	Isotope Effects of Enzymatic Dioxygenation of Nitrobenzene and 2-Nitrotoluene by Nitrobenzene Dioxygenase. <i>Environmental Science &amp; Technology</i> , 2014, 48, 10750-10759.	4.6	24
62	Molecularly Imprinted Polymers for Compound-Specific Isotope Analysis of Polar Organic Micropollutants in Aquatic Environments. <i>Analytical Chemistry</i> , 2018, 90, 7292-7301.	3.2	23
63	Kinetic Isotope Effects of the Enzymatic Transformation of <sup>13</sup> C-Hexachlorocyclohexane by the Lindane Dehydrochlorinase Variants LinA1 and LinA2. <i>Environmental Science &amp; Technology</i> , 2019, 53, 2353-2363.	4.6	23
64	Redox Properties of Structural Fe in Smectite Clay Minerals. <i>ACS Symposium Series</i> , 2011, , 361-379.	0.5	22
65	Amino acid nitrogen isotopic composition patterns in lacustrine sedimenting matter. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 121, 328-338.	1.6	22
66	Assessing Aerobic Biotransformation of Hexachlorocyclohexane Isomers by Compound-Specific Isotope Analysis. <i>Environmental Science &amp; Technology</i> , 2019, 53, 7419-7431.	4.6	20
67	Triple-Element Compound-Specific Stable Isotope Analysis (3D-CSIA): Added Value of Cl Isotope Ratios to Assess Herbicide Degradation. <i>Environmental Science &amp; Technology</i> , 2021, 55, 13891-13901.	4.6	20
68	<sup>13</sup> C- and <sup>15</sup> N-Isotope Analysis of Desphenylchloridazon by Liquid Chromatography-Isotope-Ratio Mass Spectrometry and Derivatization Gas Chromatography-Isotope-Ratio Mass Spectrometry. <i>Analytical Chemistry</i> , 2019, 91, 3412-3420.	3.2	18
69	Exploring Trends of C and N Isotope Fractionation to Trace Transformation Reactions of Diclofenac in Natural and Engineered Systems. <i>Environmental Science &amp; Technology</i> , 2016, 50, 10933-10942.	4.6	17
70	Assessment of 2,4-Dinitroanisole Transformation Using Compound-Specific Isotope Analysis after <i>In Situ</i> Chemical Reduction of Iron Oxides. <i>Environmental Science &amp; Technology</i> , 2020, 54, 5520-5531.	4.6	17
71	Isotope Fractionation Associated with the Indirect Photolysis of Substituted Anilines in Aqueous Solution. <i>Environmental Science &amp; Technology</i> , 2015, 49, 12766-12773.	4.6	16
72	Enzyme Kinetics of Different Types of Flavin-Dependent Monooxygenases Determine the Observable Contaminant Stable Isotope Fractionation. <i>Environmental Science and Technology Letters</i> , 2015, 2, 329-334.	3.9	16

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73	Carbon, Hydrogen, and Nitrogen Isotope Fractionation Trends in <i>N</i> -Nitrosodimethylamine Reflect the Formation Pathway during Chloramination of Tertiary Amines. <i>Environmental Science &amp; Technology</i> , 2017, 51, 13170-13179.	4.6	16
74	Efficiency of monolaurin in mitigating ruminal methanogenesis and modifying C-isotope fractionation when incubating diets composed of either C <sub>3</sub> or C <sub>4</sub> plants in a rumen simulation technique (Rusitec) system. <i>British Journal of Nutrition</i> , 2009, 102, 1308-1317.	1.2	15
75	Life-Cycle Assessment in Pesticide Product Development: A Methods and Case Study on Two Plant-Growth Regulators from Different Product Generations. <i>Environmental Science &amp; Technology</i> , 2005, 39, 2406-2413.	4.6	14
76	Dual-Element Isotope Analysis of Desphenylchloridazon to Investigate Its Environmental Fate in a Systematic Field Study: A Long-Term Lysimeter Experiment. <i>Environmental Science &amp; Technology</i> , 2020, 54, 3929-3939.	4.6	14
77	Thermodynamic controls on rates of iron oxide reduction by extracellular electron shuttles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	14
78	Isotope Effects as New Proxies for Organic Pollutant Transformation. <i>Chimia</i> , 2014, 68, 788.	0.3	12
79	Different Mechanisms of Alkaline and Enzymatic Hydrolysis of the Insensitive Munition Component 2,4-Dinitroanisole Lead to Identical Products. <i>Environmental Science and Technology Letters</i> , 2018, 5, 456-461.	3.9	12
80	Carbon Isotope Fractionation of Substituted Benzene Analogs during Oxidation with Ozone and Hydroxyl Radicals: How Should Experimental Data Be Interpreted?. <i>Environmental Science &amp; Technology</i> , 2020, 54, 6713-6722.	4.6	12
81	Measurement of oxygen isotope ratios ( <sup>18</sup> O/ <sup>16</sup> O) of aqueous O <sub>2</sub> in small samples by gas chromatography/isotope ratio mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2016, 30, 684-690.	0.7	11
82	Adsorbing vs. Nonadsorbing Tracers for Assessing Pesticide Transport in Arable Soils. <i>Vadose Zone Journal</i> , 2018, 17, 1-18.	1.3	11
83	Role of Carbonate in Thermodynamic Relationships Describing Pollutant Reduction Kinetics by Iron Oxide-Bound Fe <sup>2+</sup> . <i>Environmental Science &amp; Technology</i> , 2020, 54, 10109-10117.	4.6	10
84	Why Was My Paper Rejected without Review?. <i>Environmental Science &amp; Technology</i> , 2020, 54, 11641-11644.	4.6	10
85	Exploring the Utility of Compound-Specific Isotope Analysis for Assessing Ferrous Iron-Mediated Reduction of RDX in the Subsurface. <i>Environmental Science &amp; Technology</i> , 2021, 55, 6752-6763.	4.6	10
86	Substrate-Specific Coupling of O <sub>2</sub> Activation to Hydroxylations of Aromatic Compounds by Rieske Non-heme Iron Dioxygenases. <i>ACS Catalysis</i> , 2022, 12, 6444-6456.	5.5	10
87	Characterization of Substrate, Cosubstrate, and Product Isotope Effects Associated With Enzymatic Oxygenations of Organic Compounds Based on Compound-Specific Isotope Analysis. <i>Methods in Enzymology</i> , 2017, 596, 291-329.	0.4	9
88	Isotope fractionation associated with the simultaneous biodegradation of multiple nitrophenol isomers by <i>Pseudomonas putida</i> B2. <i>Environmental Sciences: Processes and Impacts</i> , 2017, 19, 775-784.	1.7	8
89	Tracking transformation processes of organic micropollutants in aquatic environments using multi-element isotope fractionation analysis. <i>Applied Geochemistry</i> , 2011, 26, S334-S336.	1.4	7
90	Elucidating the Role of O <sub>2</sub> Uncoupling in the Oxidative Biodegradation of Organic Contaminants by Rieske Non-heme Iron Dioxygenases. <i>ACS Environmental Au</i> , 2022, 2, 428-440.	3.3	7

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91	Assessing the redox properties of iron-bearing clay minerals using homogeneous electrocatalysis. Applied Geochemistry, 2011, 26, S191-S193.	1.4	6
92	A DFT study of permanganate oxidation of toluene and its ortho-nitroderivatives. Journal of Molecular Modeling, 2014, 20, 2091.	0.8	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.	0.9	6
94	Enzyme Kinetics of Organic Contaminant Oxygenations. Chimia, 2020, 74, 108.	0.3	6
95	The apparently unreactive substrate facilitates the electron transfer for dioxygen activation in Rieske dioxygenases. Chemistry - A European Journal, 2022, , .	1.7	6
96	<sup>15</sup> N Enrichment Suggests Possible Source for Halogenated 1-Methyl-1,2-bipyrroles (MBPs). Environmental Science & Technology, 2012, 46, 2064-2070.	4.6	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.	1.7	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.	1.9	3
100	New methods for the environmental chemist's toolbox. Environmental Science & Technology, 2008, 42, 7727-7727.	4.6	1
101	A Tribute to RenÄ© P. Schwarzenbach. Environmental Science & Technology, 2013, 47, 6725-6727.	4.6	0