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 apparently unreactive substrate facilitates the electron transfer for dioxygen activation in Rieske dioxygenases. Chemistry - A European Journal, 2022, , .	3.3	6
2	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
3	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
4	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
5	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
6	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
7	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
8	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
9	Why Was My Paper Rejected without Review?. Environmental Science & Technology, 2020, 54, 11641-11644.	10.0	10
10	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
11	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
12	Enzyme Kinetics of Organic Contaminant Oxygenations. Chimia, 2020, 74, 108.	0.6	6
13	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
14	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
15	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
16	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
17	Assessing Aerobic Biotransformation of Hexachlorocyclohexane Isomers by Compound-Specific Isotope Analysis. Environmental Science & Technology, 2019, 53, 7419-7431.	10.0	20
18	Decreases in Iron Oxide Reducibility during Microbial Reductive Dissolution and Transformation of Ferrihydrite. Environmental Science & Technology, 2019, 53, 8736-8746.	10.0	52

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19	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
20	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
21	Linking Thermodynamics to Pollutant Reduction Kinetics by Fe²⁺ Bound to Iron Oxides. Environmental Science & Technology, 2018, 52, 5600-5609.	10.0	59
22	Mediated Electrochemical Reduction of Iron (Oxyhydr-)Oxides under Defined Thermodynamic Boundary Conditions. Environmental Science & Technology, 2018, 52, 560-570.	10.0	35
23	Adsorbing vs. Nonadsorbing Tracers for Assessing Pesticide Transport in Arable Soils. Vadose Zone Journal, 2018, 17, 1-18.	2.2	11
24	Molecularly Imprinted Polymers for Compound-Specific Isotope Analysis of Polar Organic Micropollutants in Aquatic Environments. Analytical Chemistry, 2018, 90, 7292-7301.	6.5	23
25	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
26	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
27	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
28	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
29	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
30	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
31	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
32	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
33	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
34	Thermodynamic Characterization of Iron Oxideâ€“Aqueous Fe²⁺ Redox Couples. Environmental Science & Technology, 2016, 50, 8538-8547.	10.0	106
35	Compound-Specific Carbon, Nitrogen, and Hydrogen Isotope Analysis of N-Nitrosodimethylamine in Aqueous Solutions. Analytical Chemistry, 2015, 87, 2916-2924.	6.5	28
36	Isotope Fractionation Associated with the Direct Photolysis of 4-Chloroaniline. Environmental Science & Technology, 2015, 49, 4263-4273.	10.0	28

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37	Electrochemical Analyses of Redox-Active Iron Minerals: A Review of Nonmediated and Mediated Approaches. Environmental Science & Technology, 2015, 49, 5862-5878.	10.0	120
38	Isotope Fractionation Associated with the Indirect Photolysis of Substituted Anilines in Aqueous Solution. Environmental Science & Technology, 2015, 49, 12766-12773.	10.0	16
39	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
40	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
41	Isotope Fractionation Associated with the Photochemical Dechlorination of Chloroanilines. Environmental Science & Technology, 2015, 49, 9797-9806.	10.0	28
42	Isotope Effects as New Proxies for Organic Pollutant Transformation. Chimia, 2014, 68, 788.	0.6	12
43	A DFT study of permanganate oxidation of toluene and its ortho-nitroderivatives. Journal of Molecular Modeling, 2014, 20, 2091.	1.8	6
44	Biotransformation of Benzotriazoles: Insights from Transformation Product Identification and Compound-Specific Isotope Analysis. Environmental Science & Technology, 2014, 48, 4435-4443.	10.0	101
45	Isotope Effects of Enzymatic Dioxygenation of Nitrobenzene and 2-Nitrotoluene by Nitrobenzene Dioxygenase. Environmental Science & Technology, 2014, 48, 10750-10759.	10.0	24
46	Compound-specific isotope analysis of benzotriazole and its derivatives. Analytical and Bioanalytical Chemistry, 2013, 405, 2843-2856.	3.7	36
47	Amino acid nitrogen isotopic composition patterns in lacustrine sedimenting matter. Geochimica Et Cosmochimica Acta, 2013, 121, 328-338.	3.9	22
48	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
49	Isotopic Analysis of Oxidative Pollutant Degradation Pathways Exhibiting Large H Isotope Fractionation. Environmental Science & Technology, 2013, 47, 13459-13468.	10.0	37
50	A Tribute to RenÃ© P. Schwarzenbach. Environmental Science & Technology, 2013, 47, 6725-6727.	10.0	0
51	Isotope Fractionation Associated with the Biodegradation of 2- and 4-Nitrophenols via Monooxygenation Pathways. Environmental Science & Technology, 2013, 47, 14185-14193.	10.0	26
52	Using Compound-Specific Isotope Analysis to Assess Biodegradation of Nitroaromatic Explosives in the Subsurface. Environmental Science & Technology, 2013, 47, 6872-6883.	10.0	46
53	Carbon and Nitrogen Isotope Effects Associated with the Dioxygenation of Aniline and Diphenylamine. Environmental Science & Technology, 2012, 46, 11844-11853.	10.0	28
54	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

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55	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
56	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
57	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
58	Current challenges in compound-specific stable isotope analysis of environmental organic contaminants. Analytical and Bioanalytical Chemistry, 2012, 403, 2471-2491.	3.7	234
59	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
60	Redox Properties of Structural Fe in Smectite Clay Minerals. ACS Symposium Series, 2011, , 361-379.	0.5	22
61	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
62	Using Nitrogen Isotope Fractionation to Assess the Oxidation of Substituted Anilines by Manganese Oxide. Environmental Science & Technology, 2011, 45, 5596-5604.	10.0	37
63	Tracking transformation processes of organic micropollutants in aquatic environments using multi-element isotope fractionation analysis. Applied Geochemistry, 2011, 26, S334-S336.	3.0	7
64	Assessing the redox properties of iron-bearing clay minerals using homogeneous electrocatalysis. Applied Geochemistry, 2011, 26, S191-S193.	3.0	6
65	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
66	Assessing transformation processes of organic contaminants by compound-specific stable isotope analysis. TrAC - Trends in Analytical Chemistry, 2011, 30, 618-627.	11.4	121
67	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
68	Global Water Pollution and Human Health. Annual Review of Environment and Resources, 2010, 35, 109-136.	13.4	1,381
69	Redox Behavior of Magnetite: Implications for Contaminant Reduction. Environmental Science & Technology, 2010, 44, 55-60.	10.0	195
70	Reduction of Polychlorinated Ethanes and Carbon Tetrachloride by Structural Fe(II) in Smectites. Environmental Science & Technology, 2009, 43, 4082-4089.	10.0	89
71	Influence of Mass-Transfer Limitations on Carbon Isotope Fractionation during Microbial Dechlorination of Trichloroethene. Environmental Science & Technology, 2009, 43, 8813-8820.	10.0	63
72	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

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73	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
74	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
75	Substituent Effects on Nitrogen Isotope Fractionation During Abiotic Reduction of Nitroaromatic Compounds. Environmental Science & Technology, 2008, 42, 1997-2003.	10.0	59
76	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
77	Variability of Nitrogen Isotope Fractionation during the Reduction of Nitroaromatic Compounds with Dissolved Reductants. Environmental Science & Technology, 2008, 42, 8352-8359.	10.0	55
78	New methods for the environmental chemistâ€™s toolbox. Environmental Science & Technology, 2008, 42, 7727-7727.	10.0	1
79	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
80	Carbon, Hydrogen, and Nitrogen Isotope Fractionation During Light-Induced Transformations of Atrazine. Environmental Science & Technology, 2008, 42, 7751-7756.	10.0	78
81	Assessing Transformation Processes of Organic Compounds Using Stable Isotope Fractionation. Environmental Science & Technology, 2008, 42, 7737-7743.	10.0	90
82	Identifying Competing Aerobic Nitrobenzene Biodegradation Pathways by Compound-Specific Isotope Analysis. Environmental Science & Technology, 2008, 42, 4764-4770.	10.0	74
83	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
84	Carbon and Chlorine Isotope Effects During Abiotic Reductive Dechlorination of Polychlorinated Ethanes. Environmental Science & Technology, 2007, 41, 4662-4668.	10.0	63
85	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
86	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
87	Iron-Mediated Microbial Oxidation and Abiotic Reduction of Organic Contaminants under Anoxic Conditions. Environmental Science & Technology, 2007, 41, 7765-7772.	10.0	52
88	The Challenge of Micropollutants in Aquatic Systems. Science, 2006, 313, 1072-1077.	12.6	2,873
89	Reduction of Nitroaromatic Compounds by Fe(II) Species Associated with Iron-Rich Smectites. Environmental Science & Technology, 2006, 40, 235-242.	10.0	134
90	Using Nitrogen Isotope Fractionation To Assess Abiotic Reduction of Nitroaromatic Compounds. Environmental Science & Technology, 2006, 40, 7710-7716.	10.0	67

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91	Site-dependent fate assessment in LCA: transport of heavy metals in soil. Journal of Cleaner Production, 2005, 13, 341-361.	9.3	36
92	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
93	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
94	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
95	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
96	Environmentally Preferable Treatment Options for Industrial Waste Solvent Management. Chemical Engineering Research and Design, 2003, 81, 189-202.	5.6	31
97	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
98	Reactivity of Fe(II) Species Associated with Clay Minerals. Environmental Science & Technology, 2003, 37, 519-528.	10.0	219
99	Modeling Waste Incineration for Life-Cycle Inventory Analysis in Switzerland. Environmental Modeling and Assessment, 2001, 6, 219-235.	2.2	70
100	Complete Reduction of TNT and Other (Poly)nitroaromatic Compounds under Iron-Reducing Subsurface Conditions. Environmental Science & Technology, 1999, 33, 1479-1487.	10.0	254
101	Characterization of Predominant Reductants in an Anaerobic Leachate-Contaminated Aquifer by Nitroaromatic Probe Compounds. Environmental Science & Technology, 1998, 32, 23-31.	10.0	121