Stefan B Haderlein

List of Publications by Year
in descending order

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96 papers	7,240 citations	50170 46 h-index	54797 84 g-index
101 all docs	101 docs citations	101 times ranked	5318 citing authors

#	Article	IF	Citations
1	Reduction of Substituted Nitrobenzenes by Fe(II) in Aqueous Mineral Suspensions. Environmental Science & Technology, 1995, 29, 2396-2404.	4.6	423
2	Specific Adsorption of Nitroaromatic Explosives and Pesticides to Clay Minerals. Environmental Science & Technology, 1996, 30, 612-622.	4.6	374
3	Reactivity of Fe(II)-Bearing Minerals toward Reductive Transformation of Organic Contaminants. Environmental Science & Technology, 2004, 38, 799-807.	4.6	345
4	Compound-specific stable isotope analysis of organic contaminants in natural environments: a critical review of the state of the art, prospects, and future challenges. Analytical and Bioanalytical Chemistry, 2004, 378, 283-300.	1.9	319
5	Magnetite and Green Rust: Synthesis, Properties, and Environmental Applications of Mixed-Valent Iron Minerals. Chemical Reviews, 2018, 118, 3251-3304.	23.0	319
6	Complete Reduction of TNT and Other (Poly)nitroaromatic Compounds under Iron-Reducing Subsurface Conditions. Environmental Science & Technology, 1999, 33, 1479-1487.	4.6	254
7	Reduction of Polyhalogenated Methanes by Surface-Bound Fe(II) in Aqueous Suspensions of Iron Oxides. Environmental Science & Technology, 2002, 36, 1734-1741.	4.6	251
8	Adsorption of substituted nitrobenzenes and nitrophenols to mineral surfaces. Environmental Science & Technology, 1993, 27, 316-326.	4.6	248
9	Reactivity of Fe(II) Species Associated with Clay Minerals. Environmental Science & Technology, 2003, 37, 519-528.	4.6	219
10	New Evaluation Scheme for Two-Dimensional Isotope Analysis to Decipher Biodegradation Processes:Â Application to Groundwater Contamination by MTBE. Environmental Science & Technology, 2005, 39, 1018-1029.	4.6	184
11	Natural Organic Matter as Reductant for Chlorinated Aliphatic Pollutants. Environmental Science & Technology, 2003, 37, 2714-2719.	4.6	171
12	MTBE Oxidation by Conventional Ozonation and the Combination Ozone/Hydrogen Peroxide:Â Efficiency of the Processes and Bromate Formation. Environmental Science & Technology, 2001, 35, 4252-4259.	4.6	153
13	Biomineralization of lepidocrocite and goethite by nitrate-reducing Fe(II)-oxidizing bacteria: Effect of pH, bicarbonate, phosphate, and humic acids. Geochimica Et Cosmochimica Acta, 2010, 74, 3721-3734.	1.6	139
14	Fenton oxidation to remediate PAHs in contaminated soils: A critical review of major limitations and counter-strategies. Science of the Total Environment, 2016, 569-570, 179-190.	3.9	137
15	Microbial degradation of methyl tert-butyl ether and tert-butyl alcohol in the subsurface. Journal of Contaminant Hydrology, 2004, 70, 173-203.	1.6	134
16	In SituSpectroscopic Investigations of Adsorption Mechanisms of Nitroaromatic Compounds at Clay Minerals. Environmental Science & Technology, 1997, 31, 240-247.	4.6	133
17	Aqueous Speciation and 1-Octanolâ^'Water Partitioning of Tributyl- and Triphenyltin:Â Effect of pH and Ion Composition. Environmental Science & Technology, 1997, 31, 2596-2602.	4.6	133
18	Oxidation of Substituted Anilines by Aqueous MnO2:Â Effect of Co-Solutes on Initial and Quasi-Steady-State Kinetics. Environmental Science & Technology, 1997, 31, 2642-2649.	4.6	129

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19	Compound-Specific Carbon Isotope Analysis of Volatile Organic Compounds in the Low-Microgram per Liter Range. Analytical Chemistry, 2003, 75, 5575-5583.	3.2	123
20	Characterization of Predominant Reductants in an Anaerobic Leachate-Contaminated Aquifer by Nitroaromatic Probe Compounds. Environmental Science & Technology, 1998, 32, 23-31.	4.6	121
21	Mechanisms and Products of Surface-Mediated Reductive Dehalogenation of Carbon Tetrachloride by Fe(II) on Goethite. Environmental Science & Technology, 2004, 38, 2058-2066.	4.6	121
22	Electron Transfer between Iron Minerals and Quinones: Estimating the Reduction Potential of the Fe(II)-Goethite Surface from AQDS Speciation. Environmental Science & Technology, 2013, 47, 14161-14168.	4.6	109
23	Potential effects of biochar on the availability of phosphorus â€" mechanistic insights. Geoderma, 2016, 277, 83-90.	2.3	106
24	Compound-Specific Chlorine Isotope Analysis: A Comparison of Gas Chromatography/Isotope Ratio Mass Spectrometry and Gas Chromatography/Quadrupole Mass Spectrometry Methods in an Interlaboratory Study. Analytical Chemistry, 2011, 83, 7624-7634.	3.2	101
25	Anaerobic Degradation of Benzene, Toluene, Ethylbenzene, and o -Xylene in Sediment-Free Iron-Reducing Enrichment Cultures. Applied and Environmental Microbiology, 2005, 71, 3355-3358.	1.4	99
26	A new approach to determine method detection limits for compound-specific isotope analysis of volatile organic compounds. Rapid Communications in Mass Spectrometry, 2006, 20, 3639-3648.	0.7	96
27	Sorption of Organotin Biocides to Mineral Surfaces. Environmental Science & Technology, 1997, 31, 2603-2609.	4.6	94
28	Changes in the Enantiomeric Ratio of (R)- to (S)-Mecoprop Indicate in Situ Biodegradation of This Chiral Herbicide in a Polluted Aquifer. Environmental Science & Technology, 1998, 32, 2070-2076.	4.6	84
29	Simultaneous Determination of Fuel Oxygenates and BTEX Using Direct Aqueous Injection Gas Chromatography Mass Spectrometry (DAI-GC/MS). Environmental Science & Technology, 2002, 36, 2054-2059.	4.6	80
30	Reductive Dechlorination of TCE by Chemical Model Systems in Comparison to Dehalogenating Bacteria: Insights from Dual Element Isotope Analysis (¹³C/¹²C,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 297 To	4.6	75
31	Complex Formation of Soil Minerals with Nitroaromatic Explosives and other Ï€â€Acceptors. Soil Science Society of America Journal, 1998, 62, 369-378.	1.2	72
32	Sorption of Heterocyclic Organic Compounds to Reference Soils:Â Column Studies for Process Identification. Environmental Science & Technology, 2006, 40, 5962-5970.	4.6	71
33	Laboratory and Field Scale Evaluation of Geochemical Controls on Groundwater Transport of Nitroaromatic Ammunition Residues. Environmental Science & Technology, 1999, 33, 2593-2600.	4.6	69
34	Nonlinear sorption and nonequilibrium solute transport in aggregated porous media: Experiments, process identification and modeling. Journal of Contaminant Hydrology, 1998, 31, 373-407.	1.6	67
35	A biogeochemicalâ€"hydrological framework for the role of redox-active compounds in aquatic systems. Nature Geoscience, 2021, 14, 264-272.	5.4	67
36	Chlorine Isotope Analysis of Organic Contaminants Using GCâ€"qMS: Method Optimization and Comparison of Different Evaluation Schemes. Environmental Science & Technology, 2011, 45, 5279-5286.	4.6	66

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37	LFERs for Soil Organic Carbonâ^'Water Distribution Coefficients (K _{OC}) at Environmentally Relevant Sorbate Concentrations. Environmental Science & Technology, 2009, 43, 3094-3100.	4.6	64
38	Carbon Isotope Fractionation in the Reductive Dehalogenation of Carbon Tetrachloride at Iron (Hydr)Oxide and Iron Sulfide Minerals. Environmental Science & Technology, 2005, 39, 5634-5641.	4.6	63
39	Biodegradability and groundwater pollutant potential of organic anti-freeze liquids used in borehole heat exchangers. Geothermics, 2007, 36, 348-361.	1.5	60
40	Aggregation-dependent electron transfer via redox-active biochar particles stimulate microbial ferrihydrite reduction. Science of the Total Environment, 2020, 703, 135515.	3.9	57
41	Delineation of Multiple Chlorinated Ethene Sources in an Industrialized Areaâ€"A Forensic Field Study Using Compound-Specific Isotope Analysis. Environmental Science & Technology, 2009, 43, 2701-2707.	4.6	56
42	Flow-through experiments on waterâ€"rock interactions in a sandstone caused by CO2 injection at pressures and temperatures mimicking reservoir conditions. Applied Geochemistry, 2015, 58, 136-146.	1.4	55
43	Environmental Processes Influencing the Rate of Abiotic Reduction of Nitroaromatic Compounds in the Subsurface. , 1995, , 199-225.		53
44	Heterogeneous oxidation of Fe(II) on iron oxides in aqueous systems: Identification and controls of Fe(III) product formation. Geochimica Et Cosmochimica Acta, 2012, 91, 171-186.	1.6	52
45	Environmental Factors Influencing Sorption of Heterocyclic Aromatic Compounds to Soil. Environmental Science & Technology, 2007, 41, 3172-3178.	4.6	51
46	Effects of Zwitterionic Buffers on Sorption of Ferrous Iron at Goethite and Its Oxidation by CCl₄. Environmental Science & Technology, 2011, 45, 3355-3360.	4.6	49
47	AQDS and Redox-Active NOM Enables Microbial Fe(III)-Mineral Reduction at cm-Scales. Environmental Science & Technology, 2020, 54, 4131-4139.	4.6	49
48	Analysis of fuel oxygenates in the environment. Analyst, The, 2001, 126, 405-413.	1.7	45
49	Occurrence and fate modeling of MTBE and BTEX compounds in a Swiss Lake used as drinking water supply. Water Research, 2004, 38, 1520-1529.	5.3	41
50	Aerobic Biodegradation of Chlorinated Ethenes in a Fractured Bedrock Aquifer: Quantitative Assessment by Compound-Specific Isotope Analysis (CSIA) and Reactive Transport Modeling. Environmental Science & Technology, 2009, 43, 7458-7464.	4.6	41
51	Compound-Specific Factors Influencing Sorption Nonlinearity in Natural Organic Matter. Environmental Science & Technology, 2008, 42, 5897-5903.	4.6	40
52	Polar Fuel Constituents:Â Compound Identification and Equilibrium Partitioning between Nonaqueous Phase Liquids and Water. Environmental Science & Technology, 2002, 36, 4074-4080.	4.6	39
53	Diffusive Fractionation of BTEX and Chlorinated Ethenes in Aqueous Solution: Quantification of Spatial Isotope Gradients. Environmental Science & Technology, 2014, 48, 6141-6150.	4.6	38
54	Characteristics and environmental response of secondary minerals in AMD from Dabaoshan Mine, South China. Ecotoxicology and Environmental Safety, 2018, 155, 50-58.	2.9	37

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55	Electron Hopping Enables Rapid Electron Transfer between Quinone-/Hydroquinone-Containing Organic Molecules in Microbial Iron(III) Mineral Reduction. Environmental Science & Technology, 2020, 54, 10646-10653.	4.6	34
56	Pollutant Reduction in Heterogeneous Fe(II)-Fe(III) Systems. ACS Symposium Series, 1999, , 342-357.	0.5	30
57	Sorption of methyl tert-butyl ether (MTBE) and tert-butyl alcohol (TBA) to synthetic resins. Water Research, 2005, 39, 4164-4176.	5.3	30
58	Effect of water content on solute transport in a porous medium containing reactive micro-aggregates. Journal of Contaminant Hydrology, 1998, 33, 211-230.	1.6	28
59	Effects of Native Organic Material and Water on Sorption Properties of Reference Diesel Soot. Environmental Science & Technology, 2009, 43, 3187-3193.	4.6	27
60	Practical issues relating to soil column chromatography for sorption parameter determination. Chemosphere, 2010, 80, 787-793.	4.2	27
61	Treatment of multi-dentate surface complexes and diffuse layer implementation in various speciation codes. Applied Geochemistry, 2015, 55, 128-137.	1.4	27
62	Characterization of Sorbent Properties of Soil Organic Matter and Carbonaceous Geosorbents Using n-Alkanes and Cycloalkanes as Molecular Probes. Environmental Science & Technology, 2009, 43, 393-400.	4.6	26
63	Chemical changes in fluid composition due to CO2 injection in the Altmark gas field: preliminary results from batch experiments. Environmental Earth Sciences, 2012, 67, 385-394.	1.3	26
64	Simulation of nonlinear sorption of N-heterocyclic organic contaminates in soil columns. Journal of Contaminant Hydrology, 2009, 107, 58-65.	1.6	25
65	Effects of Sorption on Redox Properties of Natural Organic Matter. Environmental Science & Technology, 2019, 53, 14319-14328.	4.6	25
66	Capillary electrophoresis-mass spectrometry for the direct analysis of glyphosate: method development and application to beer beverages and environmental studies. Analytical and Bioanalytical Chemistry, 2020, 412, 4967-4983.	1.9	24
67	Experimental Determination of Isotope Enrichment Factors â€“ Bias from Mass Removal by Repetitive Sampling. Environmental Science & Technology, 2017, 51, 1527-1536.	4.6	21
68	High-pH and anoxic conditions during soil organic matter extraction increases its electron-exchange capacity and ability to stimulate microbial Fe(III) reduction by electron shuttling. Biogeosciences, 2020, 17, 683-698.	1.3	20
69	Reduction of Prussian Blue by the two iron-reducing microorganisms Geobacter metallireducens and Shewanella alga. Environmental Microbiology, 2006, 8, 362-367.	1.8	19
70	Resiliency of Stable Isotope Fractionation (Î´¹³C and Î´³⁷Cl) of Trichloroethene to Bacterial Growth Physiology and Expression of Key Enzymes. Environmental Science & Technology, 2015, 49, 13230-13237.	4.6	19
71	New Evaluation Scheme for Two-Dimensional Isotope Analysis to Decipher Biodegradation Processes:Â Application to Groundwater Contamination by MTBE. Environmental Science & Technology, 2005, 39, 7344-7344.	4.6	18
72	Use and Occurrence of Fuel Oxygenates in Europe. ACS Symposium Series, 2001, , 58-79.	0.5	17

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73	Introduction to Aquatic Redox Chemistry. ACS Symposium Series, 2011, , 1-14.	0.5	16
74	Preferential Sorption of Tannins at Aluminum Oxide Affects the Electron Exchange Capacities of Dissolved and Sorbed Humic Acid Fractions. Environmental Science & Technology, 2020, 54, 1837-1847.	4.6	16
75	Biochar as electron donor for reduction of N2O by Paracoccus denitrificans. FEMS Microbiology Ecology, 2020, 96, .	1.3	14
76	Integrated Carbon and Chlorine Isotope Modeling: Applications to Chlorinated Aliphatic Hydrocarbons Dechlorination. Environmental Science & Technology, 2013, 47, 130122142002006.	4.6	12
77	Electron Transfer Between Sulfide and Humic Acid: Electrochemical Evaluation of the Reactivity of Sigma-Aldrich Humic Acid Toward Sulfide. Aquatic Geochemistry, 2016, 22, 117-130.	1.5	12
78	Spherical Clay Conglomerates:Â A Novel Stationary Phase for Solid-Phase Extraction and â€œReversed-Phaseâ€•Liquid Chromatography. Analytical Chemistry, 1999, 71, 2171-2178.	3.2	11
79	Stable carbon isotope analysis of polyphosphonate complexing agents by anion chromatography coupled to isotope ratio mass spectrometry: method development and application. Analytical and Bioanalytical Chemistry, 2020, 412, 4827-4835.	1.9	11
80	Determination of the subcooled liquid solubilities of PAHs in partitioning batchÂexperiments. Geoscience Frontiers, 2013, 4, 123-126.	4.3	10
81	Optimization of a largeâ€volume injection method for compoundâ€specific isotope analysis of polycyclic aromatic compounds at trace concentrations. Rapid Communications in Mass Spectrometry, 2015, 29, 2349-2360.	0.7	10
82	Deciphering the Variability of Stable Isotope (C, Cl) Fractionation of Tetrachloroethene Biotransformation by Desulfitobacterium strains Carrying Different Reductive Dehalogenases Enzymes. Environmental Science & Technology, 2020, 54, 1593-1602.	4.6	10
83	Mediated electrochemical analysis as emerging tool to unravel links between microbial redox cycling of natural organic matter and anoxic nitrogen cycling. Earth-Science Reviews, 2020, 208, 103281.	4.0	10
84	Powering biological nitrogen removal from the environment by geobatteries. Trends in Biotechnology, 2022, 40, 377-380.	4.9	10
85	Calibration bias of experimentally determined chlorine isotope enrichment factors: the need for a twoâ€point calibration in compoundâ€specific chlorine isotope analysis. Rapid Communications in Mass Spectrometry, 2017, 31, 68-74.	0.7	9
86	Two Pathways Compete in the Mn(II)-Catalyzed Oxidation of Aminotrismethylene Phosphonate (ATMP). Environmental Science & Technology, 2022, 56, 4091-4100.	4.6	8
87	Contaminant Mass Transfer from NAPLs to Water Studied in a Continuously Stirred Flow-Through Reactor. Journal of Environmental Engineering, ASCE, 2012, 138, 826-832.	0.7	7
88	Increased copper levels inhibit denitrification in urban soils. Earth and Environmental Science Transactions of the Royal Society of Edinburgh, 2018, 109, 421-427.	0.3	7
89	Denitrifier Method for Nitrite Removal in Electrochemical Analysis of the Electron Accepting Capacity of Humic Substances. Analytical Chemistry, 2020, 92, 616-621.	3.2	6
90	Nano-sized zeolites as modulators of thiacloprid toxicity onChironomus riparius. PeerJ, 2017, 5, e3525.	0.9	6

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91	Phosphate addition enhances alkaline extraction of glyphosate from highly sorptive soils and aquatic sediments. Pest Management Science, 2022, 78, 2550-2559.	1.7	6
92	Response to Comment on â€œNew Evaluation Scheme for Two-Dimensional Isotope Analysis to Decipher Biodegradation Processes:Â Application to Groundwater Contamination by MTBEâ€• Environmental Science & Technology, 2005, 39, 8543-8544.	4.6	5
93	Effect of injected CO2 on geochemical alteration of the Altmark gas reservoir in Germany. Environmental Earth Sciences, 2014, 72, 3655-3662.	1.3	5
94	Nano-sized Al2O3 reduces acute toxic effects of thiacloprid on the non-biting midge Chironomus riparius. PLoS ONE, 2017, 12, e0176356.	1.1	5
95	Heavy rainfall following a summer drought stimulates soil redox dynamics and facilitates rapid and deep translocation of glyphosate in floodplain soils. Environmental Sciences: Processes and Impacts, 2022, , .	1.7	2
96	Response to Comment on â€œEffects of Native Organic Material and Water on Sorption Properties of Reference Diesel Sootâ€• Environmental Science & Technology, 2009, 43, 5160-5160.	4.6	0