Thilo Behrends

List of Publications by Year
in descending order

51 papers	2,315 citations	172457 29 h-index	214800 47 g-index
54 all docs	54 docs citations	54 times ranked	2845 citing authors

#	Article	IF	Citations
1	Microbial reduction of iron(III) oxyhydroxides: effects of mineral solubility and availability. Chemical Geology, 2004, 212, 255-268.	3.3	242
2	Solubility and dissimilatory reduction kinetics of iron(III) oxyhydroxides: A linear free energy relationship. Geochimica Et Cosmochimica Acta, 2009, 73, 5273-5282.	3.9	154
3	Vivianite is a major sink for phosphorus in methanogenic coastal surface sediments. Geochimica Et Cosmochimica Acta, 2015, 169, 217-235.	3.9	128
4	Dissolution of biogenic silica from land to ocean: Role of salinity and pH. Limnology and Oceanography, 2008, 53, 1614-1621.	3.1	118
5	Competition between enzymatic and abiotic reduction of uranium(VI) under iron reducing conditions. Chemical Geology, 2005, 220, 315-327.	3.3	117
6	Pyrite formation and mineral transformation pathways upon sulfidation of ferric hydroxides depend on mineral type and sulfide concentration. Chemical Geology, 2015, 400, 44-55.	3.3	83
7	Pathways of ferrous iron mineral formation upon sulfidation of lepidocrocite surfaces. Geochimica Et Cosmochimica Acta, 2012, 81, 69-81.	3.9	81
8	Vivianite is a key sink for phosphorus in sediments of the Landsort Deep, an intermittently anoxic deep basin in the Baltic Sea. Chemical Geology, 2016, 438, 58-72.	3.3	80
9	Reduction of Fe(III) colloids by Shewanella putrefaciens: A kinetic model. Geochimica Et Cosmochimica Acta, 2006, 70, 5842-5854.	3.9	73
10	Impact of cable bacteria on sedimentary iron and manganese dynamics in a seasonally-hypoxic marine basin. Geochimica Et Cosmochimica Acta, 2016, 192, 49-69.	3.9	70
11	Phosphorus burial in sediments of the sulfidic deep Black Sea: Key roles for adsorption by calcium carbonate and apatite authigenesis. Geochimica Et Cosmochimica Acta, 2017, 204, 140-158.	3.9	68
12	Reactivity of biogenic silica: Surface versus bulk charge density. Geochimica Et Cosmochimica Acta, 2010, 74, 517-530.	3.9	64
13	Biosorption of metals (Cu2+, Zn2+) and anions (Fâˆ', H2PO4âˆ') by viable and autoclaved cells of the Gram-negative bacterium Shewanella putrefaciens. Colloids and Surfaces B: Biointerfaces, 2008, 65, 126-133.	5.0	63
14	Seawater-mediated interactions between diatomaceous silica and terrigenous sediments: Results from long-term incubation experiments. Chemical Geology, 2010, 270, 68-79.	3.3	52
15	Fe hydroxyphosphate precipitation and Fe(II) oxidation kinetics upon aeration of Fe(II) and phosphate-containing synthetic and natural solutions. Geochimica Et Cosmochimica Acta, 2016, 186, 71-90.	3.9	50
16	Analysis of Cationic Surfactants by Microbore High-Performance Liquid Chromatographyâˆ'Electrospray Mass Spectrometry. Analytical Chemistry, 1999, 71, 5362-5366.	6.5	49
17	Transformation of Hematite into Magnetite During Dissimilatory Iron Reductionâ€"Conditions and Mechanisms. Geomicrobiology Journal, 2007, 24, 403-416.	2.0	49
18	Sustaining efficient production of aqueous iron during repeated operation of Fe(0)-electrocoagulation. Water Research, 2019, 155, 455-464.	11.3	48

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19	What do acid-base titrations of live bacteria tell us? A preliminary assessment. Aquatic Sciences, 2004, 66, 19-26.	1.5	44
20	Effects of temperature on rates and mineral products of microbial Fe(II) oxidation by Leptothrix cholodnii at microaerobic conditions. Geochimica Et Cosmochimica Acta, 2013, 108, 107-124.	3.9	42
21	The shelf-to-basin iron shuttle in the Black Sea revisited. Chemical Geology, 2019, 511, 314-341.	3.3	42
22	Oxygen Dependency of Neutrophilic Fe(II) Oxidation by<i>Leptothrix</i>Differs from Abiotic Reaction. Geomicrobiology Journal, 2012, 29, 550-560.	2.0	40
23	Redox-dependent changes in manganese speciation in Baltic Sea sediments from the Holocene Thermal Maximum: An EXAFS, XANES and LA-ICP-MS study. Chemical Geology, 2014, 370, 49-57.	3.3	40
24	Distribution and Diversity of <i>Gallionella</i> -Like Neutrophilic Iron Oxidizers in a Tidal Freshwater Marsh. Applied and Environmental Microbiology, 2011, 77, 2337-2344.	3.1	37
25	Implementation of microbial processes in the performance assessment of spent nuclear fuel repositories. Applied Geochemistry, 2012, 27, 453-462.	3.0	36
26	Controls on the formation of Fe(II,III) (hydr)oxides by Fe(0) electrolysis. Electrochimica Acta, 2018, 286, 324-338.	5.2	36
27	Impact of natural re-oxygenation on the sediment dynamics of manganese, iron and phosphorus in a euxinic Baltic Sea basin. Geochimica Et Cosmochimica Acta, 2019, 246, 174-196.	3.9	33
28	Achieving arsenic concentrations of <1â€¯Î¼g/L by Fe(0) electrolysis: The exceptional performance of magnetite. Water Research, 2020, 168, 115170.	11.3	33
29	Characterization of phosphorus species in sediments from the Arabian Sea oxygen minimum zone: Combining sequential extractions and X-ray spectroscopy. Marine Chemistry, 2015, 168, 1-8.	2.3	32
30	Sorption of phosphate and silicate alters dissolution kinetics of poorly crystalline iron (oxyhydr)oxide. Chemosphere, 2019, 234, 690-701.	8.2	26
31	Fate of Adsorbed U(VI) during Sulfidization of Lepidocrocite and Hematite. Environmental Science & Technology, 2017, 51, 2140-2150.	10.0	25
32	Redox properties of clay-rich sediments as assessed by mediated electrochemical analysis: Separating pyrite, siderite and structural Fe in clay minerals. Chemical Geology, 2017, 457, 149-161.	3.3	25
33	Changes in Sedimentary Phosphorus Burial Following Artificial Eutrophication of Lake 227, Experimental Lakes Area, Ontario, Canada. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2020JG005713.	3.0	23
34	Effect of dissolved calcium on the removal of bacteriophage PRD1 during soil passage: The role of double-layer interactions. Journal of Contaminant Hydrology, 2013, 144, 78-87.	3.3	22
35	Controls on the shuttling of manganese over the northwestern Black Sea shelf and its fate in the euxinic deep basin. Geochimica Et Cosmochimica Acta, 2020, 273, 177-204.	3.9	19
36	Uranium mobility in subsurface aqueous systems: the influence of redox conditions. Mineralogical Magazine, 2008, 72, 381-384.	1.4	18

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37	Sulfidization of lepidocrocite and its effect on uranium phase distribution and reduction. Geochimica Et Cosmochimica Acta, 2014, 142, 570-586.	3.9	17
38	Coastal hypoxia and eutrophication as key controls on benthic release and water column dynamics of iron and manganese. Limnology and Oceanography, 2021, 66, 807-826.	3.1	17
39	Bacteriophage PRD1 batch experiments to study attachment, detachment and inactivation processes. Journal of Contaminant Hydrology, 2013, 152, 12-17.	3.3	15
40	Optimized sequential extraction for carbonates: Quantification and Î´13C analysis of calcite, dolomite and siderite. Chemical Geology, 2016, 443, 146-157.	3.3	14
41	Phosphorus Cycling and Burial in Sediments of a Seasonally Hypoxic Marine Basin. Estuaries and Coasts, 2018, 41, 921-939.	2.2	13
42	Emerging investigator series: interdependency of green rust transformation and the partitioning and binding mode of arsenic. Environmental Sciences: Processes and Impacts, 2019, 21, 1459-1476.	3.5	13
43	Coprecipitation of Phosphate and Silicate Affects Environmental Iron (Oxyhydr)Oxide Transformations: A Gel-Based Diffusive Sampler Approach. Environmental Science & Technology, 2020, 54, 12795-12802.	10.0	13
44	Phosphate coprecipitation affects reactivity of iron (oxyhydr)oxides towards dissolved iron and sulfide. Geochimica Et Cosmochimica Acta, 2022, 321, 311-328.	3.9	13
45	Coupled dynamics of iron, manganese, and phosphorus in brackish coastal sediments populated by cable bacteria. Limnology and Oceanography, 2021, 66, 2611-2631.	3.1	12
46	A sequential extraction procedure for particulate manganese and its application to coastal marine sediments. Chemical Geology, 2021, 584, 120538.	3.3	11
47	Ein Drei-Bereiche-Modell zur Beschreibung der Adsolubilisation von aromatischen Verbindungen an tensidbelegtem Silikagel. Clean - Soil, Air, Water, 1999, 27, 422-429.	0.6	6
48	First assessment of the pore water composition of Rupel Clay in the Netherlands and the characterisation of its reactive solids. Geologie En Mijnbouw/Netherlands Journal of Geosciences, 2016, 95, 315-335.	0.9	3
49	Kinetics of selenite interactions with Boom Clay: adsorptionâ€"reduction interplay. Geological Society Special Publication, 2019, 482, 225-239.	1.3	3
50	What does mediated electrochemistry reveal about regional differences in the redox properties of Boom Clay?. Applied Geochemistry, 2020, 120, 104681.	3.0	2
51	Hydrological and biogeochemical controls on Fe cycling at the Krabbenkreek supratidal/intertidal zone, the Netherlands: Why does the Fe pump sputter?. Estuarine, Coastal and Shelf Science, 2019, 219, 372-383.	2.1	1