

Sebastian Behrens

List of Publications by Year in descending order

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Version: 2024-02-01

44
papers

4,562
citations

136740

32
h-index

233125

45
g-index

45
all docs

45
docs citations

45
times ranked

6018
citing authors

#	ARTICLE	IF	CITATIONS
1	The interplay of microbially mediated and abiotic reactions in the biogeochemical Fe cycle. <i>Nature Reviews Microbiology</i> , 2014, 12, 797-808.	13.6	627
2	Linking N ₂ O emissions from biochar-amended soil to the structure and function of the N-cycling microbial community. <i>ISME Journal</i> , 2014, 8, 660-674.	4.4	484
3	Biochar as an Electron Shuttle between Bacteria and Fe(III) Minerals. <i>Environmental Science and Technology Letters</i> , 2014, 1, 339-344.	3.9	432
4	Organic coating on biochar explains its nutrient retention and stimulation of soil fertility. <i>Nature Communications</i> , 2017, 8, 1089.	5.8	371
5	Linking Microbial Phylogeny to Metabolic Activity at the Single-Cell Level by Using Enhanced Element Labeling-Catalyzed Reporter Deposition Fluorescence In Situ Hybridization (EL-FISH) and NanoSIMS. <i>Applied and Environmental Microbiology</i> , 2008, 74, 3143-3150.	1.4	223
6	In Situ Accessibility of Small-Subunit rRNA of Members of the Domains Bacteria, Archaea, and Eucarya to Cy3-Labeled Oligonucleotide Probes. <i>Applied and Environmental Microbiology</i> , 2003, 69, 1748-1758.	1.4	152
7	Monitoring Abundance and Expression of <i>Dehalococcoides</i> Species Chloroethene-Reductive Dehalogenases in a Tetrachloroethene-Dechlorinating Flow Column. <i>Applied and Environmental Microbiology</i> , 2008, 74, 5695-5703.	1.4	133
8	Nitrate capture and slow release in biochar amended compost and soil. <i>PLoS ONE</i> , 2017, 12, e0171214.	1.1	128
9	Rhizosphere Microbial Community Composition Affects Cadmium and Zinc Uptake by the Metal-Hyperaccumulating Plant <i>Arabidopsis halleri</i> . <i>Applied and Environmental Microbiology</i> , 2015, 81, 2173-2181.	1.4	122
10	Soil biochar amendment shapes the composition of N ₂ O-reducing microbial communities. <i>Science of the Total Environment</i> , 2016, 562, 379-390.	3.9	117
11	Metagenomic Analyses of the Autotrophic Fe(II)-Oxidizing, Nitrate-Reducing Enrichment Culture KS. <i>Applied and Environmental Microbiology</i> , 2016, 82, 2656-2668.	1.4	116
12	Organic Carbon and Reducing Conditions Lead to Cadmium Immobilization by Secondary Fe Mineral Formation in a pH-Neutral Soil. <i>Environmental Science & Technology</i> , 2013, 47, 13430-13439.	4.6	114
13	Fate of Cd during Microbial Fe(III) Mineral Reduction by a Novel and Cd-Tolerant <i>Geobacter</i> Species. <i>Environmental Science & Technology</i> , 2013, 47, 14099-14109.	4.6	113
14	Effect of biochar amendment on compost organic matter composition following aerobic composting of manure. <i>Science of the Total Environment</i> , 2018, 613-614, 20-29.	3.9	96
15	Abundance, Distribution, and Activity of Fe(II)-Oxidizing and Fe(III)-Reducing Microorganisms in Hypersaline Sediments of Lake Kasin, Southern Russia. <i>Applied and Environmental Microbiology</i> , 2012, 78, 4386-4399.	1.4	86
16	Microbial community composition of a household sand filter used for arsenic, iron, and manganese removal from groundwater in Vietnam. <i>Chemosphere</i> , 2015, 138, 47-59.	4.2	84
17	Linking environmental processes to the <i>in situ</i> functioning of microorganisms by high-resolution secondary ion mass spectrometry (NanoSIMS) and scanning transmission X-ray microscopy (STXM). <i>Environmental Microbiology</i> , 2012, 14, 2851-2869.	1.8	81
18	Coexistence of Microaerophilic, Nitrate-Reducing, and Phototrophic Fe(II) Oxidizers and Fe(III) Reducers in Coastal Marine Sediment. <i>Applied and Environmental Microbiology</i> , 2016, 82, 1433-1447.	1.4	76

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19	Is the In Situ Accessibility of the 16S rRNA of Escherichia coli for Cy3-Labeled Oligonucleotide Probes Predicted by a Three-Dimensional Structure Model of the 30S Ribosomal Subunit?. Applied and Environmental Microbiology, 2003, 69, 4935-4941.	1.4	73
20	Gas entrapment and microbial N ₂ O reduction reduce N ₂ O emissions from a biochar-amended sandy clay loam soil. Scientific Reports, 2016, 6, 39574.	1.6	65
21	Does soil aging affect the N ₂ O mitigation potential of biochar? A combined microcosm and field study. GCB Bioenergy, 2017, 9, 953-964.	2.5	65
22	Influence of Seasonal and Geochemical Changes on the Geomicrobiology of an Iron Carbonate Mineral Water Spring. Applied and Environmental Microbiology, 2012, 78, 7185-7196.	1.4	60
23	Soil biochar amendment affects the diversity of nosZ transcripts: Implications for N ₂ O formation. Scientific Reports, 2017, 7, 3338.	1.6	55
24	Comparison of lactate, formate, and propionate as hydrogen donors for the reductive dehalogenation of trichloroethene in a continuous-flow column. Journal of Contaminant Hydrology, 2010, 113, 77-92.	1.6	53
25	Arsenic removal from drinking water by a household sand filter in Vietnam – Effect of filter usage practices on arsenic removal efficiency and microbiological water quality. Science of the Total Environment, 2015, 502, 526-536.	3.9	50
26	Growth and Population Dynamics of the Anaerobic Fe(II)-Oxidizing and Nitrate-Reducing Enrichment Culture KS. Applied and Environmental Microbiology, 2018, 84, .	1.4	46
27	Biochar affects community composition of nitrous oxide reducers in a field experiment. Soil Biology and Biochemistry, 2018, 119, 143-151.	4.2	46
28	High spatial resolution of distribution and interconnections between F and N redox processes in profundal lake sediments. Environmental Microbiology, 2014, 16, 3287-3303.	1.8	44
29	In Situ Accessibility of Saccharomyces cerevisiae 26S rRNA to Cy3-Labeled Oligonucleotide Probes Comprising the D1 and D2 Domains. Applied and Environmental Microbiology, 2003, 69, 2899-2905.	1.4	43
30	Graphical representation of ribosomal RNA probe accessibility data using ARB software package. BMC Bioinformatics, 2005, 6, 61.	1.2	42
31	Continuous-flow column study of reductive dehalogenation of PCE upon bioaugmentation with the Evanite enrichment culture. Journal of Contaminant Hydrology, 2008, 100, 11-21.	1.6	38
32	Tillage system affects fertilizer-induced nitrous oxide emissions. Biology and Fertility of Soils, 2017, 53, 49-59.	2.3	37
33	Long term farming systems affect soils potential for N ₂ O production and reduction processes under denitrifying conditions. Soil Biology and Biochemistry, 2017, 114, 31-41.	4.2	34
34	Ecosystem functioning from a geomicrobiological perspective – a conceptual framework for biogeochemical iron cycling. Environmental Chemistry, 2010, 7, 399.	0.7	32
35	Insights into Carbon Metabolism Provided by Fluorescence <i>In Situ</i> Hybridization-Secondary Ion Mass Spectrometry Imaging of an Autotrophic, Nitrate-Reducing, Fe(II)-Oxidizing Enrichment Culture. Applied and Environmental Microbiology, 2018, 84, .	1.4	32
36	Magnetite Formation by the Novel Fe(III)-reducing <i>Geothrix fermentans</i> Strain HradG1 Isolated from a Hydrocarbon-Contaminated Sediment with Increased Magnetic Susceptibility. Geomicrobiology Journal, 2013, 30, 863-873.	1.0	30

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37	Impact of organic carbon and iron bioavailability on the magnetic susceptibility of soils. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 128, 44-57.	1.6	27
38	Seasonal Dynamics of the Activated Sludge Microbiome in Sequencing Batch Reactors, Assessed Using 16S rRNA Transcript Amplicon Sequencing. <i>Applied and Environmental Microbiology</i> , 2020, 86, .	1.4	26
39	Secondary Mineral Formation During Ferrihydrite Reduction by <i>Shewanella oneidensis</i> MR-1 Depends on Incubation Vessel Orientation and Resulting Gradients of Cells, Fe ²⁺ and Fe Minerals. <i>Geomicrobiology Journal</i> , 2015, 32, 878-889.	1.0	23
40	Ribosomal Tag Pyrosequencing of DNA and RNA Reveals "Rare" Taxa with High Protein Synthesis Potential in the Sediment of a Hypersaline Lake in Western Australia. <i>Geomicrobiology Journal</i> , 2016, 33, 426-440.	1.0	22
41	Comparison of Humic Substance- and Fe(III)-Reducing Microbial Communities in Anoxic Aquifers. <i>Geomicrobiology Journal</i> , 2014, 31, 917-928.	1.0	19
42	Resiliency of Stable Isotope Fractionation ($\delta^{13}\text{C}$ and $\delta^{37}\text{Cl}$) of Trichloroethene to Bacterial Growth Physiology and Expression of Key Enzymes. <i>Environmental Science & Technology</i> , 2015, 49, 13230-13237.	4.6	19
43	The Effect of Nucleobase-Specific Fluorescence Quenching on In Situ Hybridization with rRNA-Targeted Oligonucleotide Probes. <i>Systematic and Applied Microbiology</i> , 2004, 27, 565-572.	1.2	13
44	Deciphering the Variability of Stable Isotope (C, Cl) Fractionation of Tetrachloroethene Biotransformation by <i>Desulfitobacterium</i> strains Carrying Different Reductive Dehalogenases Enzymes. <i>Environmental Science & Technology</i> , 2020, 54, 1593-1602.	4.6	10