Christian Knoblauch

List of Publications by Year
in descending order

48	3,551	218592	206029
papers	citations	26 h-index	48 g-index

66	66	66	4270
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Potential carbon emissions dominated by carbon dioxide from thawed permafrost soils. Nature Climate Change, 2016, 6, 950-953.	8.1	288
2	Effects and fate of biochar from rice residues in rice-based systems. Field Crops Research, 2011, 121, 430-440.	2.3	287
3	Community Structure, Cellular rRNA Content, and Activity of Sulfate-Reducing Bacteria in Marine Arctic Sediments. Applied and Environmental Microbiology, 2000, 66, 3592-3602.	1.4	259
4	Deep Yedoma permafrost: A synthesis of depositional characteristics and carbon vulnerability. Earth-Science Reviews, 2017, 172, 75-86.	4.0	236
5	Circumpolar assessment of permafrost C quality and its vulnerability over time using longâ€term incubation data. Global Change Biology, 2014, 20, 641-652.	4.2	231
6	Psychrophilic sulfate-reducing bacteria isolated from permanently cold Arctic marine sediments: description of Desulfofrigus oceanense gen. nov., sp. nov., Desulfofrigus fragile sp. nov., Desulfofaba gelida gen. nov., sp. nov., Desulfotalea psychrophila gen. nov., sp. nov. and Desulfotalea arctica sp. nov.. International Journal of Systematic and Evolutionary Microbiology, 1999, 49, 1631-1643.	0.8	221
7	Methane production as key to the greenhouse gas budget of thawing permafrost. Nature Climate Change, 2018, 8, 309-312.	8.1	194
8	Degradability of black carbon and its impact on trace gas fluxes and carbon turnover in paddy soils. Soil Biology and Biochemistry, 2011, 43, 1768-1778.	4.2	190
9	Predicting longâ€term carbon mineralization and trace gas production from thawing permafrost of <scp>N</scp>ortheast <scp>S</scp>iberia. Global Change Biology, 2013, 19, 1160-1172.	4.2	161
10	Community Size and Metabolic Rates of Psychrophilic Sulfate-Reducing Bacteria in Arctic Marine Sediments. Applied and Environmental Microbiology, 1999, 65, 4230-4233.	1.4	121
11	Controls on stable sulfur isotope fractionation during bacterial sulfate reduction in Arctic sediments. Geochimica Et Cosmochimica Acta, 2001, 65, 763-776.	1.6	106
12	Regulation of soil organic matter decomposition in permafrost-affected Siberian tundra soils - Impact of oxygen availability, freezing and thawing, temperature, and labile organic matter. Soil Biology and Biochemistry, 2017, 110, 34-43.	4.2	104
13	Effect of temperature on sulphate reduction, growth rate and growth yield in five psychrophilic sulphate-reducing bacteria from Arctic sediments. Environmental Microbiology, 1999, 1, 457-467.	1.8	100
14	Methane oxidation associated with submerged brown mosses reduces methane emissions from Siberian polygonal tundra. Journal of Ecology, 2011, 99, 914-922.	1.9	91
15	Phylogenetic Affiliation and Quantification of Psychrophilic Sulfate-Reducing Isolates in Marine Arctic Sediments. Applied and Environmental Microbiology, 1999, 65, 3976-3981.	1.4	85
16	Methane turnover and temperature response of methane-oxidizing bacteria in permafrost-affected soils of northeast Siberia. Soil Biology and Biochemistry, 2008, 40, 3004-3013.	4.2	64
17	Regulation of methane production, oxidation, and emission by vascular plants and bryophytes in ponds of the northeast Siberian polygonal tundra. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 2525-2541.	1.3	60
18	Anaerobic methanotrophic communities thrive in deep submarine permafrost. Scientific Reports, 2018, 8, 1291.	1.6	58

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19	Methane oxidation following submarine permafrost degradation: Measurements from a central Laptev Sea shelf borehole. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 965-978.	1.3	55
20	Rapid CO₂ Release From Eroding Permafrost in Seawater. Geophysical Research Letters, 2019, 46, 11244-11252.	1.5	54
21	Improved quantification of microbial CH₄ oxidation efficiency in arctic wetland soils using carbon isotope fractionation. Biogeosciences, 2013, 10, 2539-2552.	1.3	49
22	Methanogenic community composition and anaerobic carbon turnover in submarine permafrost sediments of the Siberian Laptev Sea. Environmental Microbiology, 2009, 11, 657-668.	1.8	48
23	Desulfovibrio frigidus sp. nov. and Desulfovibrio ferrireducens sp. nov., psychrotolerant bacteria isolated from Arctic fjord sediments (Svalbard) with the ability to reduce Fe(III). International Journal of Systematic and Evolutionary Microbiology, 2006, 56, 681-685.	0.8	47
24	Transformation of terrestrial organic matter along thermokarst-affected permafrost coasts in the Arctic. Science of the Total Environment, 2017, 581-582, 434-447.	3.9	45
25	Desulfotomaculum arcticum sp. nov., a novel spore-forming, moderately thermophilic, sulfate-reducing bacterium isolated from a permanently cold fjord sediment of Svalbard. International Journal of Systematic and Evolutionary Microbiology, 2006, 56, 687-690.	0.8	42
26	Microbiome assembly in thawing permafrost and its feedbacks to climate. Global Change Biology, 2022, 28, 5007-5026.	4.2	34
27	Thawing Yedoma permafrost is a neglected nitrous oxide source. Nature Communications, 2021, 12, 7107.	5.8	24
28	Methanogenic response to long-term permafrost thaw is determined by paleoenvironment. FEMS Microbiology Ecology, 2020, 96, .	1.3	23
29	Influence of Anthropogenic Activities on Metals in Arctic Permafrost: A Characterization of Benchmark Soils on the Yamal and Gydan Peninsulas in Russia. Archives of Environmental Contamination and Toxicology, 2019, 76, 540-553.	2.1	22
30	Greenhouse gas production and lipid biomarker distribution in Yedoma and Alas thermokarst lake sediments in Eastern Siberia. Global Change Biology, 2021, 27, 2822-2839.	4.2	21
31	Permafrost Carbon and CO2 Pathways Differ at Contrasting Coastal Erosion Sites in the Canadian Arctic. Frontiers in Earth Science, 2021, 9, .	0.8	21
32	Regional, seasonal and interspecific variation in 15N and 13C in sympatric mouse lemurs. Die Naturwissenschaften, 2011, 98, 909-917.	0.6	20
33	Summer rainfall dissolved organic carbon, solute, and sediment fluxes in a small Arctic coastal catchment on Herschel Island (Yukon Territory, Canada). Arctic Science, 2018, 4, 750-780.	0.9	20
34	Impact of biochar on nutrient supply, crop yield and microbial respiration on sandy soils of northern Germany. European Journal of Soil Science, 2021, 72, 1885-1901.	1.8	19
35	Carbon Dioxide and Methane Release Following Abrupt Thaw of Pleistocene Permafrost Deposits in Arctic Siberia. Journal of Geophysical Research G: Biogeosciences, 2021, 126, .	1.3	17
36	Process-based modelling of the methane balance in periglacial landscapes (JSBACH-methane). Geoscientific Model Development, 2017, 10, 333-358.	1.3	16

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37	Partitioning net ecosystem exchange of CO₂ on the pedon scale in the Lena River Delta, Siberia. Biogeosciences, 2019, 16, 1543-1562.	1.3	15
38	Greenhouse gas production in degrading ice-rich permafrost deposits in northeastern Siberia. Biogeosciences, 2018, 15, 5423-5436.	1.3	14
39	Ecosystem carbon dynamics differ between tundra shrub types in the western Canadian Arctic. Environmental Research Letters, 2018, 13, 084014.	2.2	12
40	Effects of a longâ€term anoxic warming scenario on microbial community structure and functional potential of permafrostâ€affected soil. Permafrost and Periglacial Processes, 2021, 32, 641-656.	1.5	11
41	Spatial Variability of Dissolved Organic Carbon, Solutes, and Suspended Sediment in Disturbed Low Arctic Coastal Watersheds. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005505.	1.3	10
42	Black Carbon (Biochar) in Rice-Based Systems: Characteristics and Opportunities. , 2009, , 445-463.		9
43	Dissolved organic matter characterization in soils and streams in a small coastal low-Arctic catchment. Biogeosciences, 2022, 19, 3073-3097.	1.3	9
44	Markers of Soil Organic Matter Transformation in Permafrost Peat Mounds of Northeastern Europe. Eurasian Soil Science, 2018, 51, 42-53.	0.5	8
45	Gas production from dredged sediment. Waste Management, 2019, 85, 82-89.	3.7	7
46	Sources of CO2 Produced in Freshly Thawed Pleistocene-Age Yedoma Permafrost. Frontiers in Earth Science, 2022, 9, .	0.8	5
47	Long-term deglacial permafrost carbon dynamics in MPI-ESM. Climate of the Past, 2018, 14, 2011-2036.	1.3	4
48	Development of permafrost-affected peatlands in the southern limit of the European Russian cryolithozone and their vulnerability to future warming. Science of the Total Environment, 2022, 828, 154350.	3.9	4