Klaus-Holger Knorr

List of Publications by Year
in descending order

85 papers	3,157 citations	159573 30 h-index	168376 53 g-index
112 all docs	112 docs citations	112 times ranked	3841 citing authors

#	Article	IF	Citations
1	Review on the interactions of arsenic, iron (oxy)(hydr)oxides, and dissolved organic matter in soils, sediments, and groundwater in a ternary system. Chemosphere, 2022, 286, 131790.	8.2	73
2	A novel belowground in-situ gas labeling approach: CH4 oxidation in deep peat using passive diffusion chambers and 13C excess. Science of the Total Environment, 2022, 806, 150457.	8.0	3
3	Control of carbon and nitrogen accumulation by vegetation in pristine bogs of southern Patagonia. Science of the Total Environment, 2022, 810, 151293.	8.0	5
4	Nitrogen limitation reduces the performance of target plant species in restored meadows. Restoration Ecology, 2022, 30, e13608.	2.9	7
5	Latitude, Elevation, and Mean Annual Temperature Predict Peat Organic Matter Chemistry at a Global Scale. Global Biogeochemical Cycles, 2022, 36, .	4.9	11
6	Electrochemical Properties of Peat Particulate Organic Matter on a Global Scale: Relation to Peat Chemistry and Degree of Decomposition. Global Biogeochemical Cycles, 2022, 36, .	4.9	7
7	Palaeoenvironmental conditions and human activity in the vicinity of the Grodzisko fortified settlement (central Europe, Poland) from the lateâ€Neolithic to the Roman period. Geoarchaeology - an International Journal, 2022, 37, 385-399.	1.5	2
8	Fire in lichen-rich subarctic tundra changes carbon and nitrogen cycling between ecosystem compartments but has minor effects on stocks. Biogeosciences, 2022, 19, 2729-2740.	3.3	3
9	High peatland methane emissions following permafrost thaw: enhanced acetoclastic methanogenesis during early successional stages. Biogeosciences, 2022, 19, 3051-3071.	3.3	3
10	Relations of fire, palaeohydrology, vegetation succession, and carbon accumulation, as reconstructed from a mountain bog in the Harz Mountains (Germany) during the last 6200Âyears. Geoderma, 2022, 424, 115991.	5.1	5
11	Insight into the factors of mountain bog and forest development in the Schwarzwald Mts.: Implications for ecological restoration. Ecological Indicators, 2022, 140, 109039.	6.3	7
12	Plant succession and geochemical indices in immature peatlands in the Changbai Mountains, northeastern region of China: Implications for climate change and peatland development. Science of the Total Environment, 2021, 773, 143776.	8.0	7
13	A 14,000 year peatland record of environmental change in the southern Gutland region, Luxembourg. Holocene, 2021, 31, 1005-1018.	1.7	0
14	Divergent effect of silicon on greenhouse gas production from reduced and oxidized peat organic matter. Geoderma, 2021, 386, 114916.	5.1	10
15	Late Holocene periods of copper mining in the Eisenerz Alps (Austria) deduced from calcareous lake deposits. Anthropocene, 2021, 33, 100273.	3.3	4
16	Methane Production Rate during Anoxic Litter Decomposition Depends on Si Mass Fractions, Nutrient Stoichiometry, and Carbon Quality. Plants, 2021, 10, 618.	3.5	3
17	Multi-proxy analyses of a minerotrophic fen to reconstruct prehistoric periods of human activity associated with salt mining in the Hallstatt region (Austria). Journal of Archaeological Science: Reports, 2021, 36, 102813.	0.5	3
18	Potentially peatâ€forming biomass of fen sedges increases with increasing nutrient levels. Functional Ecology, 2021, 35, 1579-1595.	3.6	8

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19	Temperature and sediment properties drive spatiotemporal variability of methane ebullition in a small and shallow temperate lake. Limnology and Oceanography, 2021, 66, 2598-2610.	3.1	14
20	Wholeâ€lake methane emissions from two temperate shallow lakes with fluctuating water levels: Relevance of spatiotemporal patterns. Limnology and Oceanography, 2021, 66, 2455-2469.	3.1	15
21	Congruent changes in microbial community dynamics and ecosystem methane fluxes following natural drought in two restored fens. Soil Biology and Biochemistry, 2021, 160, 108348.	8.8	15
22	Can nutrient uptake by Carex counteract eutrophication in fen peatlands?. Science of the Total Environment, 2021, 785, 147276.	8.0	8
23	Methane fluxes but not respiratory carbon dioxide fluxes altered under Si amendment during drying â€“ rewetting cycles in fen peat mesocosms. Geoderma, 2021, 404, 115338.	5.1	6
24	Global CO2 fertilization of Sphagnum peat mosses via suppression of photorespiration during the twentieth century. Scientific Reports, 2021, 11, 24517.	3.3	5
25	A multi-proxy analysis of hydroclimate trends in an ombrotrophic bog over the last millennium in the Eastern Carpathians of Romania. Palaeogeography, Palaeoclimatology, Palaeoecology, 2020, 538, 109390.	2.3	10
26	Evaluating biogeochemical indicators of methanogenic conditions and thermodynamic constraints in peat. Applied Geochemistry, 2020, 114, 104471.	3.0	2
27	Increased silicon concentration in fen peat leads to a release of iron and phosphate and changes in the composition of dissolved organic matter. Geoderma, 2020, 374, 114422.	5.1	28
28	Longâ€term Impacts of Permafrost Thaw on CarbonÂStorage in Peatlands: Deep Losses Offset by Surficial Accumulation. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005501.	3.0	30
29	Peat decomposition proxies of Alpine bogs along a degradation gradient. Geoderma, 2020, 369, 114331.	5.1	21
30	Organic matter and sediment properties determine in-lake variability of sediment CO₂ and CH₄ production and emissions of a small and shallow lake. Biogeosciences, 2020, 17, 5057-5078.	3.3	23
31	Anthropogenic and climate signals in late-Holocene peat layers of an ombrotrophic bog in the Styrian Enns valley (Austrian Alps). E&G Quaternary Science Journal, 2020, 69, 121-137.	0.7	4
32	Mobilisation and transport of dissolved organic carbon and iron in peat catchmentsâ€"Insights from the Lehstenbach stream in Germany using generalised additive models. Hydrological Processes, 2019, 33, 3213-3225.	2.6	5
33	A 1-year greenhouse gas budget of a peatland exposed to long-term nutrient infiltration and altered hydrology: high carbon uptake and methane emission. Environmental Monitoring and Assessment, 2019, 191, 533.	2.7	3
34	Silicon accumulation in rice plant aboveground biomass affects leaf carbon quality. Plant and Soil, 2019, 444, 399-407.	3.7	20
35	Plant communities control long term carbon accumulation and biogeochemical gradients in a Patagonian bog. Science of the Total Environment, 2019, 684, 670-681.	8.0	34
36	Zero to moderate methane emissions in a densely rooted, pristine Patagonian bog â€“ biogeochemical controls as revealed from isotopic evidence. Biogeosciences, 2019, 16, 541-559.	3.3	19

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37	The effect of long-term fertilization on peat in an ombrotrophic bog. Geoderma, 2019, 343, 176-186.	5.1	27
38	Effect of Reduced Sulfur Species on Chemolithoautotrophic Pyrite Oxidation with Nitrate. Geomicrobiology Journal, 2019, 36, 19-29.	2.0	32
39	Electron accepting capacity of dissolved and particulate organic matter control CO2 and CH4 formation in peat soils. Geochimica Et Cosmochimica Acta, 2019, 245, 266-277.	3.9	65
40	Peatbog resilience to pollution and climate change over the past 2700â€¯years in the Harz Mountains, Germany. Ecological Indicators, 2019, 97, 183-193.	6.3	27
41	Occurrence and fate of colloids and colloid-associated metals in a mining-impacted agricultural soil upon prolonged flooding. Journal of Hazardous Materials, 2018, 348, 56-66.	12.4	58
42	Gradients of organic matter quality, mineralization and sequestration in Cookâ€™s Bay of Lake Simcoe, Canada. Limnologica, 2018, 68, 92-104.	1.5	3
43	Juncus effusus mono-stands in restored cutover peat bogs â€“ Analysis of litter quality, controls of anaerobic decomposition, and the risk of secondary carbon loss. Soil Biology and Biochemistry, 2018, 117, 139-152.	8.8	20
44	Predominance of methanogens over methanotrophs in rewetted fens characterized by high methane emissions. Biogeosciences, 2018, 15, 6519-6536.	3.3	38
45	Differential response of carbon cycling to long-term nutrient input and altered hydrological conditions in aÂcontinental Canadian peatland. Biogeosciences, 2018, 15, 885-903.	3.3	11
46	Plant rhizosphere oxidation reduces methane production and emission in rewetted peatlands. Soil Biology and Biochemistry, 2018, 125, 125-135.	8.8	32
47	Does iron reduction control the release of dissolved organic carbon and phosphate at catchment scales? Need for a joint research effort. Global Change Biology, 2017, 23, e5-e6.	9.5	4
48	Transport, anoxia and end-product accumulation control carbon dioxide and methane production and release in peat soils. Biogeochemistry, 2017, 133, 219-239.	3.5	14
49	Peatlands in a eutrophic world â€“ Assessing the state of a poor fen-bog transition in southern Ontario, Canada, after long term nutrient input and altered hydrological conditions. Soil Biology and Biochemistry, 2017, 114, 131-144.	8.8	11
50	Enhanced silicon availability leads to increased methane production, nutrient and toxicant mobility in peatlands. Scientific Reports, 2017, 7, 8728.	3.3	46
51	Changes in dissolved organic matter quality in a peatland and forest headwater stream as a function of seasonality and hydrologic conditions. Hydrology and Earth System Sciences, 2017, 21, 2035-2051.	4.9	35
52	Organic sulfur and organic matter redox processes contribute to electron flow in anoxic incubations of peat. Environmental Chemistry, 2016, 13, 816.	1.5	15
53	Associative nitrogen fixation in nodules of the conifer Lepidothamnus fonkii (Podocarpaceae) inhabiting ombrotrophic bogs in southern Patagonia. Scientific Reports, 2016, 6, 39072.	3.3	13
54	Compound amino acids added in media improved<i>Solanum nigrum</i>L. phytoremediating CD-PAHS contaminated soil. International Journal of Phytoremediation, 2016, 18, 358-363.	3.1	14

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55	Black carbon deposition and storage in peat soils of the Changbai Mountain, China. Geoderma, 2016, 273, 98-105.	5.1	32
56	Relationships between Vegetation Succession, Pore Water Chemistry and CH4 and CO2 Production in a Transitional Mire of Western Siberia (Tyumen Oblast). Wetlands, 2016, 36, 863-874.	1.5	10
57	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.	1.3	12
58	Consortia of low-abundance bacteria drive sulfate reduction-dependent degradation of fermentation products in peat soil microcosms. ISME Journal, 2016, 10, 2365-2375.	9.8	159
59	Investigating speciation and toxicity of heavy metals in anoxic marine sedimentsâ€"a case study from a mariculture bay in Southern China. Journal of Soils and Sediments, 2016, 16, 665-676.	3.0	11
60	Significant nonsymbiotic nitrogen fixation in Patagonian ombrotrophic bogs. Global Change Biology, 2015, 21, 2357-2365.	9.5	32
61	Sea spray, trace elements, and decomposition patterns as possible constraints on the evolution of CH4 and CO2 concentrations and isotopic signatures in oceanic ombrotrophic bogs. Biogeochemistry, 2015, 122, 327-342.	3.5	18
62	Electron Transfer Budgets and Kinetics of Abiotic Oxidation and Incorporation of Aqueous Sulfide by Dissolved Organic Matter. Environmental Science & Technology, 2015, 49, 5441-5449.	10.0	61
63	Comparison of different methods to determine the degree of peat decomposition in peat bogs. Biogeosciences, 2014, 11, 2691-2707.	3.3	127
64	Colloid-associated export of arsenic in stream water during stormflow events. Chemical Geology, 2013, 352, 81-91.	3.3	46
65	Belowground in situ redox dynamics and methanogenesis recovery in a degraded fen during dry-wet cycles and flooding. Biogeosciences, 2013, 10, 421-436.	3.3	40
66	DOC-dynamics in a small headwater catchment as driven by redox fluctuations and hydrological flow paths â€“ are DOC exports mediated by iron reduction/oxidation cycles?. Biogeosciences, 2013, 10, 891-904.	3.3	138
67	Concentrations and fluxes of dissolved organic carbon in runoff from a forested catchment: insights from high frequency measurements. Biogeosciences, 2013, 10, 905-916.	3.3	115
68	Sulfate-reducing microorganisms in wetlands â€“ fameless actors in carbon cycling and climate change. Frontiers in Microbiology, 2012, 3, 72.	3.5	264
69	Controls on in situ oxygen and dissolved inorganic carbon dynamics in peats of a temperate fen. Journal of Geophysical Research, 2012, 117, .	3.3	48
70	Surface microâ€‘topography causes hot spots of biogeochemical activity in wetland systems: A virtual modeling experiment. Journal of Geophysical Research, 2012, 117, .	3.3	97
71	Peat decomposition records in three pristine ombrotrophic bogs in southern Patagonia. Biogeosciences, 2012, 9, 1479-1491.	3.3	140
72	Plant-mediated CH₄ transport and contribution of photosynthates to methanogenesis at a boreal mire: a ¹⁴C pulse-labeling study. Biogeosciences, 2011, 8, 2365-2375.	3.3	72

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73	Effects of short-term drying and irrigation on CO2 and CH4 production and emission from mesocosms of a northern bog and an alpine fen. Biogeochemistry, 2010, 100, 89-103.	3.5	49
74	Impact of altering the water table height of an acidic fen on N₂O and NO fluxes and soil concentrations. Global Change Biology, 2010, 16, 220-233.	9.5	87
75	Impact of experimental drought and rewetting on redox transformations and methanogenesis in mesocosms of a northern fen soil. Soil Biology and Biochemistry, 2009, 41, 1187-1198.	8.8	127
76	Dynamics of redox processes in a minerotrophic fen exposed to a water table manipulation. Geoderma, 2009, 153, 379-392.	5.1	98
77	Isotopic evidence for condensed aromatics from nonâ€pyrogenic sources in soils â€" implications for current methods for quantifying soil black carbon. Rapid Communications in Mass Spectrometry, 2008, 22, 935-942.	1.5	71
78	Experimental drought alters rates of soil respiration and methanogenesis but not carbon exchange in soil of a temperate fen. Soil Biology and Biochemistry, 2008, 40, 1781-1791.	8.8	99
79	A snapshot of CO₂ and CH₄ evolution in a thermokarst pond near Igarka, northern Siberia. Journal of Geophysical Research, 2008, 113, .	3.3	14
80	Arsenic speciation and turnover in intact organic soil mesocosms during experimental drought and rewetting. Geochimica Et Cosmochimica Acta, 2008, 72, 3991-4007.	3.9	58
81	N₂O concentration and isotope signature along profiles provide deeper insight into the fate of N₂O in soilsâ€. Isotopes in Environmental and Health Studies, 2008, 44, 377-391.	1.0	49
82	Fluxes and ¹³C isotopic composition of dissolved carbon and pathways of methanogenesis in a fen soil exposed to experimental drought. Biogeosciences, 2008, 5, 1457-1473.	3.3	64
83	Controls on schwertmannite transformation rates and products. Applied Geochemistry, 2007, 22, 2006-2015.	3.0	87
84	Experimental inflow of groundwater induces a â€œbiogeochemical regime shiftâ€•in iron-rich and acidic sediments. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	16
85	Experimentally Altered Groundwater Inflow Remobilizes Acidity from Sediments of an Iron Rich and Acidic Lake. Environmental Science & Technology, 2006, 40, 2944-2950.	10.0	17