Matthias Koschorreck

List of Publications by Year
in descending order

81	2,580	186209 28	223716 46
papers	citations	h-index	g-index

104	104	104	2891
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Oxidation of atmospheric methane in soil: Measurements in the field, in soil cores and in soil samples. Global Biogeochemical Cycles, 1993, 7, 109-121.	1.9	168
2	Microbial sulphate reduction at a low pH. FEMS Microbiology Ecology, 2008, 64, 329-342.	1.3	159
3	Occurrence and role of algae and fungi in acid mine drainage environment with special reference to metals and sulfate immobilization. Water Research, 2009, 43, 883-894.	5.3	145
4	Legume embryos develop in a hypoxic environment. Journal of Experimental Botany, 2002, 53, 1099-1107.	2.4	135
5	Technical note: drifting versus anchored flux chambers for measuring greenhouse gas emissions from running waters. Biogeosciences, 2015, 12, 7013-7024.	1.3	97
6	Emissions from dry inland waters are a blind spot in the global carbon cycle. Earth-Science Reviews, 2019, 188, 240-248.	4.0	93
7	Functional Groups and Activities of Bacteria in a Highly Acidic Volcanic Mountain Stream and Lake in Patagonia, Argentina. Microbial Ecology, 2002, 43, 92-106.	1.4	78
8	Global CO2 emissions from dry inland waters share common drivers across ecosystems. Nature Communications, 2020, 11, 2126.	5.8	73
9	Global carbon budget of reservoirs is overturned by the quantification of drawdown areas. Nature Geoscience, 2021, 14, 402-408.	5.4	70
10	Carbon dioxide emissions from dry watercourses. Inland Waters, 2014, 4, 377-382.	1.1	69
11	Hot spots for carbon emissions from Mediterranean fluvial networks during summer drought. Biogeochemistry, 2015, 125, 409-426.	1.7	58
12	Microbial Sulfate Reduction at Low pH in Sediments of an Acidic Lake in Argentina. Environmental Science & Technology, 2003, 37, 1159-1162.	4.6	55
13	Nitrogen dynamics in seasonally flooded soils in the Amazon floodplain. Wetlands Ecology and Management, 2003, 11, 317-330.	0.7	51
14	Regulation of CO₂ emissions from temperate streams and reservoirs. Biogeosciences, 2013, 10, 7539-7551.	1.3	47
15	Microbial activity and biogeochemical cycling in a nutrient-rich meromictic acid pit lake. Limnologica, 2012, 42, 175-188.	0.7	42
16	Processes at the Sediment Water Interface after Addition of Organic Matter and Lime to an Acid Mine Pit Lake Mesocosm. Environmental Science & Technology, 2007, 41, 1608-1614.	4.6	41
17	The importance of physical transport and oxygen consumption for the development of a metalimnetic oxygen minimum in a lake. Limnology and Oceanography, 2017, 62, 348-363.	1.6	40
18	Benthic photosynthesis in an acidic mining lake (pH 2.6). Limnology and Oceanography, 2002, 47, 1197-1201.	1.6	38

#	Article	IF	Citations
19	Title is missing!. Water, Air and Soil Pollution, 2002, 2, 81-96.	0.8	38
20	Community structure and photosynthetic activity of epilithon from a highly acidic (pH?2) mountain stream in Patagonia, Argentina. Extremophiles, 2004, 8, 463-473.	0.9	38
21	Technical note: CO₂ is not like CH₄ â€“ limits of and corrections to the headspace method to analyse <i>p</i>CO₂ in fresh water. Biogeosciences, 2021, 18, 1619-1627.	1.3	36
22	Dry habitats sustain high CO2 emissions from temporary ponds across seasons. Scientific Reports, 2018, 8, 3015.	1.6	35
23	Formation of biogenic sulphides in the water column of an acidic pit lake: biogeochemical controls and effects on trace metal dynamics. Biogeochemistry, 2014, 121, 519-536.	1.7	32
24	Ecological response of two hydroâ€morphological similar preâ€dams to contrasting landâ€use in the Rappbode reservoir system (Germany). International Review of Hydrobiology, 2014, 99, 335-349.	0.5	32
25	Oxidative consumption of nitric oxide by heterotrophic bacteria in soil. FEMS Microbiology Ecology, 1996, 19, 165-170.	1.3	31
26	Structure and function of the microbial community in an in situ reactor to treat an acidic mine pit lake. FEMS Microbiology Ecology, 2010, 73, no-no.	1.3	31
27	Oxidation of nitric oxide by a new heterotrophic Pseudomonas sp.. Archives of Microbiology, 1996, 166, 23-31.	1.0	30
28	Functions of Straw for In Situ Remediation of Acidic Mining Lakes. Water, Air and Soil Pollution, 2002, 2, 97-109.	0.8	29
29	Natural Alkalinity Generation in Neutral Lakes Affected by Acid Mine Drainage. Journal of Environmental Quality, 2007, 36, 1163-1171.	1.0	29
30	Benthic dissolved organic carbon fluxes in a drinking water reservoir. Limnology and Oceanography, 2016, 61, 445-459.	1.6	29
31	Redox Conditions Affect Dissolved Organic Carbon Quality in Stratified Freshwaters. Environmental Science & Technology, 2017, 51, 13705-13713.	4.6	29
32	Hidden treasures: Human-made aquatic ecosystems harbour unexplored opportunities. Ambio, 2020, 49, 531-540.	2.8	28
33	Oxidative and reductive microbial consumption of nitric oxide in a heathland soil. Soil Biology and Biochemistry, 1996, 28, 1389-1396.	4.2	26
34	Methane turnover in exposed sediments of an Amazon floodplain lake. , 2000, 50, 195-206.		26
35	A pilot-scale field experiment for the microbial neutralization of a holomictic acidic pit lake. Journal of Geochemical Exploration, 2009, 100, 153-159.	1.5	26
36	No Nitrification in Lakes Below pH 3. Environmental Science & Technology, 2013, 47, 14018-14023.	4.6	25

#	Article	IF	Citations
37	Physical controls of oxygen fluxes at pelagic and benthic oxyclines in a lake. Limnology and Oceanography, 2014, 59, 1637-1650.	1.6	24
38	Oxygen Ebullition From Lakes. Geophysical Research Letters, 2017, 44, 9372-9378.	1.5	24
39	Disentangling multiple chemical and non-chemical stressors in a lotic ecosystem using a longitudinal approach. Science of the Total Environment, 2021, 769, 144324.	3.9	24
40	Microbial iron reduction during passive in situ remediation of an acidic mine pit lake mesocosm. Limnologica, 2010, 40, 175-181.	0.7	23
41	Anaerobic metabolism of two hydroâ€morphological similar preâ€dams under contrasting nutrient loading (Rappbode Reservoir System, Germany). International Review of Hydrobiology, 2014, 99, 350-362.	0.5	22
42	Effects of benthic filamentous algae on the sedimentâ€“water interface in an acidic mining lake. Hydrobiologia, 2007, 592, 387-397.	1.0	21
43	Kinetics of nitric oxide consumption in tropical soils under oxic and anoxic conditions. Biology and Fertility of Soils, 1997, 25, 82-88.	2.3	20
44	Routine analysis of sediment pore water of high ionic strength. Clean - Soil, Air, Water, 2006, 34, 593-607.	0.8	20
45	Methane storage and ebullition in monimolimnetic waters of polluted mine pit lake Vollert-Sued, Germany. Science of the Total Environment, 2017, 584-585, 1-10.	3.9	20
46	Comparison of two different methods to measure nitric oxide turnover in soils. Biology and Fertility of Soils, 1999, 29, 104-110.	2.3	19
47	An In-lake Reactor to Treat an Acidic Lake: the Effect of Substrate Overdosage. Mine Water and the Environment, 2002, 21, 137-149.	0.9	19
48	Title is missing!. Water, Air and Soil Pollution, 2002, 2, 123-140.	0.8	18
49	Biogeochemistry of the sedimentâ€“water interface in the littoral of an acidic mining lake studied with microsensors and gel-probes. Journal of Experimental Marine Biology and Ecology, 2003, 285-286, 71-84.	0.7	18
50	Abundance and primary production of filamentous green algae Zygogonium ericetorum in an extremely acid (pH 2.9) mining lake and its impact on alkalinity generation. Freshwater Biology, 2006, 51, 925-937.	1.2	18
51	Biotechnological remediation of an acidic pit lake: Modelling the basic processes in a mesocosm experiment. Journal of Geochemical Exploration, 2007, 92, 212-221.	1.5	18
52	Nitrogen Turnover in Drying Sediments of an Amazon Floodplain Lake. Microbial Ecology, 2005, 49, 567-577.	1.4	17
53	Sediment resuspension effects on dissolved organic carbon fluxes and microbial metabolic potentials in reservoirs. Aquatic Sciences, 2017, 79, 749-764.	0.6	17
54	Methanogenesis in the sediment of the acidic Lake Caviahue in Argentina. Journal of Volcanology and Geothermal Research, 2008, 178, 197-204.	0.8	16

#	Article	IF	Citations
55	A sediment core incubation method to measure the flux of dissolved organic carbon between sediment and water. Journal of Soils and Sediments, 2015, 15, 2350-2358.	1.5	15
56	Terrestrial Vegetation Drives Methane Production in the Sediments of two German Reservoirs. Scientific Reports, 2019, 9, 15944.	1.6	14
57	Cross-continental importance of CH4 emissions from dry inland-waters. Science of the Total Environment, 2022, 814, 151925.	3.9	13
58	CO2 emissions from German drinking water reservoirs. Science of the Total Environment, 2017, 581-582, 10-18.	3.9	12
59	Influence of bioturbation on the biogeochemistry of littoral sediments of an acidic post-mining pit lake. Biogeosciences, 2011, 8, 339-352.	1.3	11
60	A sediment exchange experiment to assess the limiting factors of microbial sulfate reduction in acidic mine pit lakes. Journal of Soils and Sediments, 2012, 12, 1615-1622.	1.5	11
61	Organic matter in sediments of an acidic mining lake as assessed by lipid analysis. Part I: Fatty acids. Science of the Total Environment, 2012, 414, 614-623.	3.9	11
62	A closed-chamber method to measure greenhouse gas fluxes from dry aquatic sediments. Atmospheric Measurement Techniques, 2017, 10, 2377-2382.	1.2	11
63	Nitrogen Balance of a Floodplain Forest of the Amazon River: The Role of Nitrogen Fixation. Ecological Studies, 2010, , 281-299.	0.4	10
64	Oxygen depletion induced by adding whey to an enclosure in an acidic mine pit lake. Ecological Engineering, 2011, 37, 1983-1989.	1.6	9
65	Emission of CO₂ and CH₄ From 13 Deadwood Tree Species Is Linked to Tree Species Identity and Management Intensity in Forest and Grassland Habitats. Global Biogeochemical Cycles, 2022, 36, .	1.9	9
66	Effect of fluctuating oxygen concentration on iron oxidation at the pelagic ferrocline of a meromictic lake. Environmental Chemistry, 2015, 12, 723.	0.7	8
67	Organic matter in sediment layers of an acidic mining lake as assessed by lipid analysis. Part II: Neutral lipids. Science of the Total Environment, 2017, 578, 219-227.	3.9	8
68	Spatial upscaling of CO₂ emissions from exposed river sediments of the Elbe River during an extreme drought. Ecohydrology, 2020, 13, e2216.	1.1	7
69	Fluvial CO2 and CH4 in a lowland agriculturally impacted river network: Importance of local and longitudinal controls. Environmental Pollution, 2022, 303, 119125.	3.7	7
70	Large-scale sampling of the freshwater microbiome suggests pollution-driven ecosystem changes. Environmental Pollution, 2022, 308, 119627.	3.7	7
71	In-Lake Bioreactors for the Treatment of Acid Mine Water in Pit Lakes. Advanced Materials Research, 2007, 20-21, 271-274.	0.3	6
72	Restoration of Acid Drainage. , 2009, , 342-358.		6

#	Article	IF	Citations
73	Temporal Patterns of Methane Emissions From Two Streams With Different Riparian Connectivity. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2020JG006104.	1.3	6
74	Spatial Variability and Hotspots of Methane Concentrations in a Large Temperate River. Frontiers in Environmental Science, 2022, 10, .	1.5	6
75	A Season of Eddy-Covariance Fluxes Above an Extensive Water Body Based on Observations from a Floating Platform. Boundary-Layer Meteorology, 2020, 174, 433-464.	1.2	5
76	Minor effect of beaver dams on stream dissolved organic carbon in the catchment of a German drinking water reservoir. Limnologica, 2016, 61, 36-43.	0.7	4
77	The acidic waters of Rio Agrio and Lago Caviahue at Volcan Copahue, Argentina. Verhandlungen Der Internationalen Vereinigung Fur Theoretische Und Angewandte Limnologie International Association of Theoretical and Applied Limnology, 2006, 29, 1583-1586.	0.1	3
78	Flow velocity and nutrients affect CO2 emissions from agricultural drainage channels in the North China Plain. Environmental Sciences Europe, 2020, 32, .	2.6	3
79	Sediment diagenesis and porewater solute fluxes in acidic mine lakes: the impact of dissolved organic carbon additions. Marine and Freshwater Research, 2009, 60, 660.	0.7	2
80	Correction [to â€œOxidation of atmospheric methane in soil: Measurements in the field, in soil, and in soil samplesâ€•by Matthias Koschorreck and Ralf Conrad]. Global Biogeochemical Cycles, 1995, 9, 305-305.	1.9	0
81	Do NaOH amendments control the chemical and biological production of sulphate in aerated mine lake sediments?. Environmental Geology, 2002, 41, 906-915.	1.2	0