

Moritz F Lehmann

List of Publications by Year in descending order

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115
papers

7,454
citations

61687

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docs citations

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times ranked

9897
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#	ARTICLE	IF	CITATIONS
1	Distributions and sources of isoprenoidal GDGTs in Lake Lugano and other central European (peri-)alpine lakes: Lessons for their use as paleotemperature proxies. <i>Quaternary Science Reviews</i> , 2022, 277, 107352.	1.4	19
2	Successful mainstream nitrification through NOB inactivation. <i>Science of the Total Environment</i> , 2022, 822, 153546.	3.9	14
3	Tracing N ₂ O formation in full-scale wastewater treatment with natural abundance isotopes indicates control by organic substrate and process settings. <i>Water Research X</i> , 2022, 15, 100130.	2.8	12
4	Multiple Groups of Methanotrophic Bacteria Mediate Methane Oxidation in Anoxic Lake Sediments. <i>Frontiers in Microbiology</i> , 2022, 13, .	1.5	4
5	Isotopic signatures of biotic and abiotic N_2O production and consumption in the water column of meromictic, ferruginous Lake La Cruz (Spain). <i>Limnology and Oceanography</i> , 2022, 67, 1760-1775.	1.6	1
6	Copper mobilisation from Cu sulphide minerals by methanobactin: Effect of pH, oxygen and natural organic matter. <i>Geobiology</i> , 2022, 20, 690-706.	1.1	5
7	Nitrogen and oxygen isotopomeric constraints on the sources of nitrous oxide and the role of submarine groundwater discharge in a temperate eutrophic salt wedge estuary. <i>Limnology and Oceanography</i> , 2021, 66, 1068-1082.	1.6	5
8	Biomarker and Isotopic Composition of Seep Carbonates Record Environmental Conditions in Two Arctic Methane Seeps. <i>Frontiers in Earth Science</i> , 2021, 8, .	0.8	10
9	Hydrogeology Journal, 2021, 29, 1153-1171.		
10	Tapping Freshwaters for Methane and Energy. <i>Environmental Science & Technology</i> , 2021, 55, 4183-4189.	4.6	3
11	Nitrogen isotope effects can be used to diagnose N transformations in wastewater anammox systems. <i>Scientific Reports</i> , 2021, 11, 7850.	1.6	4
12	Convergent evidence for the pervasive but limited contribution of biomass burning to atmospheric ammonia in peninsular Southeast Asia. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 7187-7198.	1.9	8
13	Methane oxidation in the waters of a humic-rich boreal lake stimulated by photosynthesis, nitrite, Fe(III) and humics. <i>Biogeosciences</i> , 2021, 18, 3087-3101.	1.3	20
14	Distinct growth stages controlled by the interplay of deterministic and stochastic processes in functional anammox biofilms. <i>Water Research</i> , 2021, 200, 117225.	5.3	39
15	Stable isotope ratios in seawater nitrate reflect the influence of Pacific water along the northwest Atlantic margin. <i>Biogeosciences</i> , 2021, 18, 4491-4510.	1.3	7
16	Morphology, Formation, and Activity of Three Different Pockmark Systems in Peri-Alpine Lake Thun, Switzerland. <i>Frontiers in Water</i> , 2021, 3, .	1.0	4
17	Manganese/iron-supported sulfate-dependent anaerobic oxidation of methane by archaea in lake sediments. <i>Limnology and Oceanography</i> , 2020, 65, 863-875.	1.6	54
18	Controls of H ₂ S, Fe ²⁺ , and Mn ²⁺ on Microbial NO ₃ ⁻ -Reducing Processes in Sediments of an Eutrophic Lake. <i>Frontiers in Microbiology</i> , 2020, 11, 1158.	1.5	23

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19	The biodiversity - N cycle relationship: a ^{15}N tracer experiment with soil from plant mixtures of varying diversity to model N pool sizes and transformation rates. <i>Biology and Fertility of Soils</i> , 2020, 56, 1047-1061.	2.3	7
20	What can we learn from N_2/O isotope data? â€“ Analytics, processes and modelling. <i>Rapid Communications in Mass Spectrometry</i> , 2020, 34, e8858.	0.7	67
21	Amino acid and amino sugar compositional changes during in vitro degradation of algal organic matter indicate rapid bacterial re-synthesis. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 283, 67-84.	1.6	18
22	Puzzling Haze Events in China During the Coronavirus (COVIDâ€“19) Shutdown. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088533.	1.5	165
23	Reduced methane seepage from Arctic sediments during cold bottom-water conditions. <i>Nature Geoscience</i> , 2020, 13, 144-148.	5.4	53
24	Impact of reactive surfaces on the abiotic reaction between nitrite and ferrous iron and associated nitrogen and oxygen isotope dynamics. <i>Biogeosciences</i> , 2020, 17, 4355-4374.	1.3	8
25	Effects of climate change and episodic heat events on cyanobacteria in a eutrophic polymictic lake. <i>Science of the Total Environment</i> , 2019, 693, 133414.	3.9	58
26	Evaluating radioisotopeâ€“based approaches to measure anaerobic methane oxidation rates in lacustrine sediments. <i>Limnology and Oceanography: Methods</i> , 2019, 17, 429-438.	1.0	8
27	Hot tops, cold bottoms: Synergistic climate warming and shielding effects increase carbon burial in lakes. <i>Limnology and Oceanography Letters</i> , 2019, 4, 132-144.	1.6	82
28	Fracture-controlled fluid transport supports microbial methane-oxidizing communities at Vestnesa Ridge. <i>Biogeosciences</i> , 2019, 16, 2221-2232.	1.3	21
29	Oxygen minimum zone-type biogeochemical cycling in the Cenomanian-Turonian Proto-North Atlantic across Oceanic Anoxic Event 2. <i>Earth and Planetary Science Letters</i> , 2019, 517, 50-60.	1.8	18
30	Direct O_2 control on the partitioning between denitrification and dissimilatory nitrate reduction to ammonium in lake sediments. <i>Biogeosciences</i> , 2019, 16, 4705-4718.	1.3	14
31	Isotopic constraints on the atmospheric sources and formation of nitrogenous species in clouds influenced by biomass burning. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 12221-12234.	1.9	19
32	Chemosynthesis influences food web and community structure in high-Arctic benthos. <i>Marine Ecology - Progress Series</i> , 2019, 629, 19-42.	0.9	24
33	Life on the edge: active microbial communities in the Kryos MgCl_2 -brine basin at very low water activity. <i>ISME Journal</i> , 2018, 12, 1414-1426.	4.4	42
34	Alteration of nitrous oxide emissions from floodplain soils by aggregate size, litter accumulation and plantâ€“soil interactions. <i>Biogeosciences</i> , 2018, 15, 7043-7057.	1.3	12
35	Redox-dependent niche differentiation provides evidence for multiple bacterial sources of glycerol tetraether lipids in lakes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 10926-10931.	3.3	94
36	Effects of two contrasted arbuscular mycorrhizal fungal isolates on nutrient uptake by <i>Sorghum bicolor</i> under drought. <i>Mycorrhiza</i> , 2018, 28, 779-785.	1.3	70

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37	13C isotopic signature and C concentration of soil density fractions illustrate reduced C allocation to subalpine grassland soil under high atmospheric N deposition. Soil Biology and Biochemistry, 2018, 125, 178-184.	4.2	15
38	Delayed nitrate dispersion within a coastal aquifer provides constraints on land-use evolution and nitrate contamination in the past. Science of the Total Environment, 2018, 644, 928-940.	3.9	44
39	Nitrogen isotope fractionation during gas-to-particle conversion of NO₂ to NO₃ in the atmosphere – implications for isotope-based NO_x source apportionment. Atmospheric Chemistry and Physics, 2018, 18, 11647-11661.	1.9	65
40	Landscape opening and herding strategies: Carbon isotope analyses of herbivore bone collagen from the Neolithic and Bronze Age lakeshore site of Zurich-Mozartstrasse, Switzerland. Quaternary International, 2017, 436, 18-28.	0.7	23
41	Isotopic constraints on water source mixing, network leakage and contamination in an urban groundwater system. Science of the Total Environment, 2017, 583, 202-213.	3.9	48
42	Incomplete recovery of intact polar glycerol dialkyl glycerol tetraethers from lacustrine suspended biomass. Limnology and Oceanography: Methods, 2017, 15, 782-793.	1.0	11
43	Methane- and dissolved organic carbon-fueled microbial loop supports a tropical subterranean estuary ecosystem. Nature Communications, 2017, 8, 1835.	5.8	79
44	Nitrate contamination in a shallow urban aquifer in East Ukraine: evidence from hydrochemical, stable isotopes of nitrate and land use analysis. Environmental Earth Sciences, 2017, 76, 1.	1.3	33
45	Phylogenetic, structural, and functional characterization of AMT3;1, an ammonium transporter induced by mycorrhization among model grasses. Mycorrhiza, 2017, 27, 695-708.	1.3	28
46	Effects of low oxygen concentrations on aerobic methane oxidation in seasonally hypoxic coastal waters. Biogeosciences, 2017, 14, 1631-1645.	1.3	66
47	The Beginnings of Alpine Transhumance? Isotopic Insights into Neolithic Cattle Herding. Chimia, 2017, 71, 860.	0.3	1
48	High-resolution isotopic evidence of specialised cattle herding in the European Neolithic. PLoS ONE, 2017, 12, e0180164.	1.1	43
49	Methanotrophy under Versatile Conditions in the Water Column of the Ferruginous Meromictic Lake La Cruz (Spain). Frontiers in Microbiology, 2016, 7, 1762.	1.5	41
50	Benthic nitrogen regeneration, fixation, and denitrification in a temperate, eutrophic lake: Effects on the nitrogen budget and cyanobacteria blooms. Limnology and Oceanography, 2016, 61, 1406-1423.	1.6	60
51	Reassessment of the NH₄⁺NO₃⁻ thermal decomposition technique for calibration of the N₂O isotopic composition. Rapid Communications in Mass Spectrometry, 2016, 30, 2487-2496.	0.7	17
52	N use efficiencies and N₂O emissions in two contrasting, biochar amended soils under winter wheat – cover crop – sorghum rotation. Environmental Research Letters, 2016, 11, 084013.	2.2	16
53	Differential N₂O dynamics in two oxygen-deficient lake basins revealed by stable isotope and isotopomer distributions. Limnology and Oceanography, 2016, 61, 1735-1749.	1.6	26
54	Linked sediment and water – column methanotrophy at a man – made gas blowout in the North Sea: Implications for methane budgeting in seasonally stratified shallow seas. Limnology and Oceanography, 2016, 61, S367.	1.6	31

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55	Acidification Enhances Hybrid N ₂ O Production Associated with Aquatic Ammonia-Oxidizing Microorganisms. <i>Frontiers in Microbiology</i> , 2016, 7, 2104.	1.5	45
56	Toxic effects of lab-grade butyl rubber stoppers on aerobic methane oxidation. <i>Limnology and Oceanography: Methods</i> , 2015, 13, 40-52.	1.0	39
57	Powering up the "biogeochemical engine": the impact of exceptional ventilation of a deep meromictic lake on the lacustrine redox, nutrient, and methane balances. <i>Frontiers in Earth Science</i> , 2015, 3, .	0.8	31
58	Nitrogen cycling in the deep sedimentary biosphere: nitrate isotopes in porewaters underlying the oligotrophic North Atlantic. <i>Biogeosciences</i> , 2015, 12, 7483-7502.	1.3	41
59	Coupled nitrate N and O stable isotope fractionation by a natural marine plankton consortium. <i>Frontiers in Marine Science</i> , 2015, 2, .	1.2	11
60	Species-dependent partitioning of C and N stable isotopes between arbuscular mycorrhizal fungi and their C ₃ and C ₄ hosts. <i>Soil Biology and Biochemistry</i> , 2015, 82, 52-61.	4.2	26
61	Identification and carbon isotope composition of a novel branched GDGT isomer in lake sediments: Evidence for lacustrine branched GDGT production. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 154, 118-129.	1.6	110
62	Molecular and geochemical constraints on anaerobic ammonium oxidation (anammox) in a riparian zone of the Seine Estuary (France). <i>Biogeochemistry</i> , 2015, 123, 237-250.	1.7	47
63	Water column methanotrophy controlled by a rapid oceanographic switch. <i>Nature Geoscience</i> , 2015, 8, 378-382.	5.4	89
64	Spatial variations in surface water methane super-saturation and emission in Lake Lugano, southern Switzerland. <i>Aquatic Sciences</i> , 2015, 77, 535-545.	0.6	32
65	Genetic and Environmental Controls on Nitrous Oxide Accumulation in Lakes. <i>PLoS ONE</i> , 2015, 10, e0121201.	1.1	55
66	Bacterial methanotrophs drive the formation of a seasonal anoxic benthic nepheloid layer in an alpine lake. <i>Limnology and Oceanography</i> , 2014, 59, 1410-1420.	1.6	27
67	Partitioning between benthic and pelagic nitrate reduction in the Lake Lugano south basin. <i>Limnology and Oceanography</i> , 2014, 59, 1421-1433.	1.6	30
68	Diversity and abundance of Bacteria and nirS-encoding denitrifiers associated with the Juan de Fuca Ridge hydrothermal system. <i>Annals of Microbiology</i> , 2014, 64, 1691-1705.	1.1	20
69	Community N and O isotope fractionation by sulfide-dependent denitrification and anammox in a stratified lacustrine water column. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 125, 551-563.	1.6	53
70	Microaerobic bacterial methane oxidation in the chemocline and anoxic water column of deep south-Alpine Lake Lugano (Switzerland). <i>Limnology and Oceanography</i> , 2014, 59, 311-324.	1.6	129
71	The Contamination of Commercial ¹⁵ N ₂ Gas Stocks with ¹⁵ N-Labeled Nitrate and Ammonium and Consequences for Nitrogen Fixation Measurements. <i>PLoS ONE</i> , 2014, 9, e110335.	1.1	224
72	Amino acid nitrogen isotopic composition patterns in lacustrine sedimenting matter. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 121, 328-338.	1.6	22

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73	Nitrate elimination and regeneration as evidenced by dissolved inorganic nitrogen isotopes in Saanich Inlet, a seasonally anoxic fjord. <i>Marine Chemistry</i> , 2013, 157, 194-207.	0.9	21
74	Nitrogen isotope effects induced by anammox bacteria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 18994-18999.	3.3	174
75	Field-scale labelling and activity quantification of methane-oxidizing bacteria in a landfill-cover soil. <i>FEMS Microbiology Ecology</i> , 2013, 83, 392-401.	1.3	12
76	Tracking the carbon source of arbuscular mycorrhizal fungi colonizing C3 and C4 plants using carbon isotope ratios ($\delta^{13}\text{C}$). <i>Soil Biology and Biochemistry</i> , 2013, 58, 341-344.	4.2	12
77	Combining sedimentological, trace metal (Mn, Mo) and molecular evidence for reconstructing past water-column redox conditions: The example of meromictic Lake Cadagno (Swiss Alps). <i>Geochimica Et Cosmochimica Acta</i> , 2013, 120, 220-238.	1.6	70
78	The acceleration of oceanic denitrification during deglacial warming. <i>Nature Geoscience</i> , 2013, 6, 579-584.	5.4	84
79	Isotope Signatures of N_2O in a Mixed Microbial Population System: Constraints on N_2O Producing Pathways in Wastewater Treatment. <i>Environmental Science & Technology</i> , 2013, 47, 130118101927005.	4.6	59
80	Variations of the nitrate isotopic composition in the St. Lawrence River caused by seasonal changes in atmospheric nitrogen inputs. <i>Biogeochemistry</i> , 2013, 115, 287-298.	1.7	30
81	Implications of water column ammonium uptake and regeneration for the nitrogen budget in temperate, eutrophic Missisquoi Bay, Lake Champlain (Canada/USA). <i>Hydrobiologia</i> , 2013, 718, 173-188.	1.0	37
82	Rapid nitrogen transfer in the <i>Sorghum bicolor</i> - <i>Glomus mosseae</i> arbuscular mycorrhizal symbiosis. <i>Plant Signaling and Behavior</i> , 2013, 8, e25229.	1.2	16
83	Anaerobic ammonium oxidation (anammox) bacteria and sulfide-dependent denitrifiers coexist in the water column of a meromictic south-alpine lake. <i>Limnology and Oceanography</i> , 2013, 58, 1-12.	1.6	104
84	Benthic fluxes of dissolved organic nitrogen in the lower St. Lawrence estuary and implications for selective organic matter degradation. <i>Biogeosciences</i> , 2013, 10, 7609-7622.	1.3	21
85	Organic carbon and nitrogen export from a tropical dam-impacted floodplain system. <i>Biogeosciences</i> , 2013, 10, 23-38.	1.3	26
86	Year-round N_2O production by benthic NO_3^- reduction in a monomictic south-alpine lake. <i>Biogeosciences</i> , 2013, 10, 8373-8383.	1.3	16
87	Mycorrhizal Networks: Common Goods of Plants Shared under Unequal Terms of Trade. <i>Plant Physiology</i> , 2012, 159, 789-797.	2.3	332
88	A review of nitrogen isotopic alteration in marine sediments. <i>Paleoceanography</i> , 2012, 27, .	3.0	240
89	Subseafloor nitrogen transformations in diffuse hydrothermal vent fluids of the Juan de Fuca Ridge evidenced by the isotopic composition of nitrate and ammonium. <i>Geochemistry, Geophysics, Geosystems</i> , 2012, 13, .	1.0	60
90	The nitrogen isotope effect of benthic remineralization-nitrification-denitrification coupling in an estuarine environment. <i>Biogeosciences</i> , 2012, 9, 1633-1646.	1.3	54

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91	Activity and abundance of denitrifying bacteria in the subsurface biosphere of diffuse hydrothermal vents of the Juan de Fuca Ridge. <i>Biogeosciences</i> , 2012, 9, 4661-4678.	1.3	37
92	Nitrate removal in a restored riparian groundwater system: functioning and importance of individual riparian zones. <i>Biogeosciences</i> , 2012, 9, 4295-4307.	1.3	15
93	Organic matter reactivity indicators in sediments of the St. Lawrence Estuary. <i>Estuarine, Coastal and Shelf Science</i> , 2012, 102-103, 36-47.	0.9	39
94	Bacterial GDGTs in Holocene sediments and catchment soils of a high Alpine lake: application of the MBT/CBT-paleothermometer. <i>Climate of the Past</i> , 2012, 8, 889-906.	1.3	68
95	Parallel ecological diversification in Antarctic notothenioid fishes as evidence for adaptive radiation. <i>Molecular Ecology</i> , 2011, 20, 4707-4721.	2.0	68
96	Nutrient regime shift in the western North Atlantic indicated by compound-specific $\delta^{15}\text{N}$ of deep-sea gorgonian corals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 1011-1015.	3.3	142
97	Benthic nutrient fluxes along the Laurentian Channel: Impacts on the N budget of the St. Lawrence marine system. <i>Estuarine, Coastal and Shelf Science</i> , 2010, 90, 195-205.	0.9	34
98	Simulating the global distribution of nitrogen isotopes in the ocean. <i>Global Biogeochemical Cycles</i> , 2010, 24, .	1.9	186
99	Natural and human-induced environmental change in southern Albania for the last 300 years – Constraints from the Lake Butrint sedimentary record. <i>Global and Planetary Change</i> , 2010, 71, 183-192.	1.6	46
100	Aerobic respiration and hypoxia in the Lower St. Lawrence Estuary: Stable isotope ratios of dissolved oxygen constrain oxygen sink partitioning. <i>Limnology and Oceanography</i> , 2009, 54, 2157-2169.	1.6	46
101	The dual isotopes of deep nitrate as a constraint on the cycle and budget of oceanic fixed nitrogen. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2009, 56, 1419-1439.	0.6	177
102	Nitrate isotope anomalies reflect N_2 fixation in the Azores Front region (subtropical NE) Tj ETQq0 0 0 ggBT /Overlock 10 Tf 83 63	1.9	181
103	Variation in the isotopic composition of zinc in the natural environment and the use of zinc isotopes in biogeosciences: a review. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 390, 451-463.	1.9	181
104	A mid-Holocene transition in the nitrogen dynamics of the western equatorial Pacific: Evidence of a deepening thermocline?. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	23
105	Nitrogen and oxygen isotope fractionation during dissimilatory nitrate reduction by denitrifying bacteria. <i>Limnology and Oceanography</i> , 2008, 53, 2533-2545.	1.6	360
106	The distribution of nitrate $^{15}\text{N}/^{14}\text{N}$ in marine sediments and the impact of benthic nitrogen loss on the isotopic composition of oceanic nitrate. <i>Geochimica Et Cosmochimica Acta</i> , 2007, 71, 5384-5404.	1.6	123
107	A method for nitrite removal in nitrate N and O isotope analyses. <i>Limnology and Oceanography: Methods</i> , 2006, 4, 205-212.	1.0	70
108	Coupled nitrogen and oxygen isotope measurements of nitrate along the eastern North Pacific margin. <i>Global Biogeochemical Cycles</i> , 2005, 19, n/a-n/a.	1.9	311

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109	Origin of the deep Bering Sea nitrate deficit: Constraints from the nitrogen and oxygen isotopic composition of water column nitrate and benthic nitrate fluxes. <i>Global Biogeochemical Cycles</i> , 2005, 19, n/a-n/a.	1.9	87
110	Coupling the $^{15}\text{N}/^{14}\text{N}$ and $^{18}\text{O}/^{16}\text{O}$ of nitrate as a constraint on benthic nitrogen cycling. <i>Marine Chemistry</i> , 2004, 88, 1-20.	0.9	158
111	Interannual variation of the isotopic composition of sedimenting organic carbon and nitrogen in Lake Lugano: A long-term sediment trap study. <i>Limnology and Oceanography</i> , 2004, 49, 839-849.	1.6	37
112	Seasonal variation of the $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ of particulate and dissolved carbon and nitrogen in Lake Lugano: Constraints on biogeochemical cycling in a eutrophic lake. <i>Limnology and Oceanography</i> , 2004, 49, 415-429.	1.6	166
113	Modelling nitrogen and oxygen isotope fractionation during denitrification in a lacustrine redox-transition zone. <i>Geochimica Et Cosmochimica Acta</i> , 2003, 67, 2529-2542.	1.6	205
114	Preservation of organic matter and alteration of its carbon and nitrogen isotope composition during simulated and in situ early sedimentary diagenesis. <i>Geochimica Et Cosmochimica Acta</i> , 2002, 66, 3573-3584.	1.6	701
115	A Method for the Extraction of Ammonium from Freshwaters for Nitrogen Isotope Analysis. <i>Analytical Chemistry</i> , 2001, 73, 4717-4721.	3.2	31