

Helge Niemann

List of Publications by Year in descending order

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88
papers

5,869
citations

71004

43
h-index

90395

73
g-index

113
all docs

113
docs citations

113
times ranked

6519
citing authors

#	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	Compositions of dissolved organic matter in the ice-covered waters above the Aurora hydrothermal vent system, Gakkel Ridge, Arctic Ocean. <i>Biogeosciences</i> , 2022, 19, 2101-2120.	1.3	3
3	Multiple Groups of Methanotrophic Bacteria Mediate Methane Oxidation in Anoxic Lake Sediments. <i>Frontiers in Microbiology</i> , 2022, 13, .	1.5	4
4	Relationship Between Particle Properties and Immunotoxicological Effects of Environmentally-Sourced Microplastics. <i>Frontiers in Water</i> , 2022, 4, .	1.0	4
5	Microbial Degradation of Marine Plastics: Current State and Future Prospects. , 2021, , 111-154.		9
6	The fate of plastic in the ocean environment – a minireview. <i>Environmental Sciences: Processes and Impacts</i> , 2021, 23, 198-212.	1.7	120
7	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
8	Seasonal shifts of microbial methane oxidation in Arctic shelf waters above gas seeps. <i>Limnology and Oceanography</i> , 2021, 66, 1896-1914.	1.6	12
9	Methanotrophs: Discoveries, Environmental Relevance, and a Perspective on Current and Future Applications. <i>Frontiers in Microbiology</i> , 2021, 12, 678057.	1.5	80
10	Microbial Communities on Plastic Polymers in the Mediterranean Sea. <i>Frontiers in Microbiology</i> , 2021, 12, 673553.	1.5	64
11	Microbial activity, methane production, and carbon storage in Early Holocene North Sea peats. <i>Biogeosciences</i> , 2021, 18, 5491-5511.	1.3	3
12	Sources and sinks of methane in sea ice. <i>Elementa</i> , 2021, 9, .	1.1	5
13	The Potential Role of Marine Fungi in Plastic Degradation – A Review. <i>Frontiers in Marine Science</i> , 2021, 8, .	1.2	42
14	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
15	Physical controls of dynamics of methane venting from a shallow seep area west of Svalbard. <i>Continental Shelf Research</i> , 2020, 194, 104030.	0.9	19
16	Multi-proxy approach to unravel methane emission history of an Arctic cold seep. <i>Quaternary Science Reviews</i> , 2020, 244, 106490.	1.4	12
17	The Impact of Methane on Microbial Communities at Marine Arctic Gas Hydrate Bearing Sediment. <i>Frontiers in Microbiology</i> , 2020, 11, 1932.	1.5	32
18	Compositional Differences in Dissolved Organic Matter Between Arctic Cold Seeps Versus Non-Seep Sites at the Svalbard Continental Margin and the Barents Sea. <i>Frontiers in Earth Science</i> , 2020, 8, .	0.8	6

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19	Discovery and quantification of a widespread methane ebullition event in a coastal inlet (Baltic Sea) using a novel sonar strategy. <i>Scientific Reports</i> , 2020, 10, 4393.	1.6	24
20	Biogeochemical Consequences of Nonvertical Methane Transport in Sediment Offshore Northwestern Svalbard. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2020, 125, e2019JG005371.	1.3	9
21	Reduced methane seepage from Arctic sediments during cold bottom-water conditions. <i>Nature Geoscience</i> , 2020, 13, 144-148.	5.4	53
22	Mud Volcano Biogeochemistry. , 2020, , 769-780.		1
23	Methane-fuelled biofilms predominantly composed of methanotrophic ANME-1 in Arctic gas hydrate-related sediments. <i>Scientific Reports</i> , 2019, 9, 9725.	1.6	33
24	Evaluating radioisotope-based approaches to measure anaerobic methane oxidation rates in lacustrine sediments. <i>Limnology and Oceanography: Methods</i> , 2019, 17, 429-438.	1.0	8
25	Fracture-controlled fluid transport supports microbial methane-oxidizing communities at Vestnesa Ridge. <i>Biogeosciences</i> , 2019, 16, 2221-2232.	1.3	21
26	Discriminative biogeochemical signatures of methanotrophs in different chemosynthetic habitats at an active mud volcano in the Canadian Beaufort Sea. <i>Scientific Reports</i> , 2019, 9, 17592.	1.6	5
27	Chemosynthesis influences food web and community structure in high-Arctic benthos. <i>Marine Ecology - Progress Series</i> , 2019, 629, 19-42.	0.9	24
28	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
29	Biogeochemical evidence of anaerobic methane oxidation on active submarine mud volcanoes on the continental slope of the Canadian Beaufort Sea. <i>Biogeosciences</i> , 2018, 15, 7419-7433.	1.3	20
30	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
31	Incomplete recovery of intact polar glycerol dialkyl glycerol tetraethers from lacustrine suspended biomass. <i>Limnology and Oceanography: Methods</i> , 2017, 15, 782-793.	1.0	11
32	Methane- and dissolved organic carbon-fueled microbial loop supports a tropical subterranean estuary ecosystem. <i>Nature Communications</i> , 2017, 8, 1835.	5.8	79
33	1. Methane seeps in a changing climate. , 2017, , 1-32.		2
34	Effects of low oxygen concentrations on aerobic methane oxidation in seasonally hypoxic coastal waters. <i>Biogeosciences</i> , 2017, 14, 1631-1645.	1.3	66
35	<i>Labilibaculum manganireducens</i> gen. nov., sp. nov. and <i>Labilibaculum filiforme</i> sp. nov., Novel Bacteroidetes Isolated from Subsurface Sediments of the Baltic Sea. <i>Frontiers in Microbiology</i> , 2017, 8, 2614.	1.5	25
36	<i>Marinisporobacter balticus</i> gen. nov., sp. nov., <i>Desulfosporosinus nitroreducens</i> sp. nov. and <i>Desulfosporosinus fructosivorans</i> sp. nov., new spore-forming bacteria isolated from subsurface sediments of the Baltic Sea. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2017, 67, 1887-1893.	0.8	37

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37	Differential N ₂ O dynamics in two oxygen-deficient lake basins revealed by stable isotope and isotopomer distributions. <i>Limnology and Oceanography</i> , 2016, 61, 1735-1749.	1.6	26
38	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. <i>Limnology and Oceanography</i> , 2016, 61, S367.	1.6	31
39	Effects of climate change on methane emissions from seafloor sediments in the Arctic Ocean: A review. <i>Limnology and Oceanography</i> , 2016, 61, S283.	1.6	109
40	Fluxes and fate of dissolved methane released at the seafloor at the landward limit of the gas hydrate stability zone offshore western Svalbard. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 6185-6201.	1.0	57
41	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
42	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
43	Species-dependent partitioning of C and N stable isotopes between arbuscular mycorrhizal fungi and their C3 and C4 hosts. <i>Soil Biology and Biochemistry</i> , 2015, 82, 52-61.	4.2	26
44	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
45	Geological settings and seafloor morphodynamic evolution linked to methane seepage. <i>Geo-Marine Letters</i> , 2015, 35, 289-304.	0.5	9
46	Water column methanotrophy controlled by a rapid oceanographic switch. <i>Nature Geoscience</i> , 2015, 8, 378-382.	5.4	89
47	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
48	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
49	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
50	Sources of glycerol dialkyl glycerol tetraethers (GDGTs) in catchment soils, water column and sediments of Lake Rotsee (Switzerland) – Implications for the application of GDGT-based proxies for lakes. <i>Organic Geochemistry</i> , 2014, 66, 164-173.	0.9	64
51	Tracing the methane cycle with lipid biomarkers in Lake Rotsee (Switzerland). <i>Organic Geochemistry</i> , 2014, 66, 174-181.	0.9	49
52	Temporal Constraints on Hydrate-Controlled Methane Seepage off Svalbard. <i>Science</i> , 2014, 343, 284-287.	6.0	219
53	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
54	Micro-aerobic 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

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55	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
56	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
57	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
58	Anaerobic oxidation of methane in hypersaline cold seep sediments. <i>FEMS Microbiology Ecology</i> , 2013, 83, 214-231.	1.3	60
59	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
60	Vertical distribution of methane oxidation and methanotrophic response to elevated methane concentrations in stratified waters of the Arctic fjord Storfjorden (Svalbard, Norway). <i>Biogeosciences</i> , 2013, 10, 6267-6278.	1.3	77
61	Methane-Carbon Flow into the Benthic Food Web at Cold Seeps – A Case Study from the Costa Rica Subduction Zone. <i>PLoS ONE</i> , 2013, 8, e74894.	1.1	70
62	Mycorrhizal Networks: Common Goods of Plants Shared under Unequal Terms of Trade – Plant Physiology, 2012, 159, 789-797.	2.3	332
63	Correction for Holler et al., Carbon and sulfur back flux during anaerobic microbial oxidation of methane and coupled sulfate reduction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 21170-21170.	3.3	13
64	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
65	Response of sulfate-reducing bacteria to an artificial oil-spill in a coastal marine sediment. <i>Environmental Microbiology</i> , 2011, 13, 1488-1499.	1.8	55
66	Carbon and sulfur back flux during anaerobic microbial oxidation of methane and coupled sulfate reduction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, E1484-90.	3.3	104
67	Benthic respiration in a seep habitat dominated by dense beds of ampharetid polychaetes at the Hikurangi Margin (New Zealand). <i>Marine Geology</i> , 2010, 272, 223-232.	0.9	55
68	Biogeochemical signatures and microbial activity of different cold-seep habitats along the Gulf of Mexico deep slope. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2010, 57, 1990-2001.	0.6	93
69	Extremely halophilic microbial communities in anaerobic sediments from a solar saltern. <i>Environmental Microbiology Reports</i> , 2010, 2, 258-271.	1.0	44
70	Mud Volcanoes. , 2010, , 205-214.		13
71	Biogeochemistry of a low-activity cold seep in the Larsen B area, western Weddell Sea, Antarctica. <i>Biogeosciences</i> , 2009, 6, 2383-2395.	1.3	58
72	Microbial methane oxidation and sulfate reduction at cold seeps of the deep Eastern Mediterranean Sea. <i>Marine Geology</i> , 2009, 261, 114-127.	0.9	69

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73	Assimilation of methane and inorganic carbon by microbial communities mediating the anaerobic oxidation of methane. <i>Environmental Microbiology</i> , 2008, 10, 2287-2298.	1.8	136
74	Endosymbioses between bacteria and deep-sea siboglinid tubeworms from an Arctic Cold Seep (Haakon Tjørring) in the Barents Sea. <i>Environmental Microbiology</i> , 2008, 10, 107-117.	1.8	107
75	Diagnostic lipid biomarker and stable carbon isotope signatures of microbial communities mediating the anaerobic oxidation of methane with sulphate. <i>Organic Geochemistry</i> , 2008, 39, 1668-1677.	0.9	164
76	Occurrence of unusual steroids and hopanoids derived from aerobic methanotrophs at an active marine mud volcano. <i>Organic Geochemistry</i> , 2008, 39, 167-177.	0.9	59
77	Biogeochemical processes and microbial diversity of the Gullfaks and Tommeliten methane seeps (Northern North Sea). <i>Biogeosciences</i> , 2008, 5, 1127-1144.	1.3	54
78	Diversity and Abundance of Aerobic and Anaerobic Methane Oxidizers at the Haakon Mosby Mud Volcano, Barents Sea. <i>Applied and Environmental Microbiology</i> , 2007, 73, 3348-3362.	1.4	338
79	Seafloor geological studies above active gas chimneys off Egypt (Central Nile Deep Sea Fan). <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2007, 54, 1146-1172.	0.6	89
80	AlvinExplores the Deep Northern Gulf of Mexico Slope. <i>Eos</i> , 2007, 88, 341.	0.1	33
81	Novel microbial communities of the Haakon Mosby mud volcano and their role as a methane sink. <i>Nature</i> , 2006, 443, 854-858.	13.7	570
82	<i>Desulfuromonas svalbardensis</i> sp. nov. and <i>Desulfuromusa ferrireducens</i> sp. nov., psychrophilic, Fe(III)-reducing bacteria isolated from Arctic sediments, Svalbard. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2006, 56, 1133-1139.	0.8	93
83	Microbial methane turnover at mud volcanoes of the Gulf of Cadiz. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 5336-5355.	1.6	173
84	In situ fluxes and zonation of microbial activity in surface sediments of the Haakon Mosby Mud Volcano. <i>Limnology and Oceanography</i> , 2006, 51, 1315-1331.	1.6	198
85	Methane emission and consumption at a North Sea gas seep (Tommeliten area). <i>Biogeosciences</i> , 2005, 2, 335-351.	1.3	129
86	<i>Methanobacterium aarhusense</i> sp. nov., a novel methanogen isolated from a marine sediment (Aarhus Tjørring) in the Barents Sea. <i>Environmental Microbiology</i> , 2005, 7, 107-117.	0.8	70
87	Red Sea gravity currents cascade near-reef phytoplankton to the twilight zone. <i>Marine Ecology - Progress Series</i> , 2004, 269, 91-99.	0.9	35
88	Structural and functional analysis of a microbial mat ecosystem from a unique permanent hypersaline inland lake: La Salada de Chiprana (NE Spain). <i>FEMS Microbiology Ecology</i> , 2003, 44, 175-189.	1.3	105