Gaute Lavik

List of Publications by Year
in descending order

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Version: 2024-02-01

86 papers	10,382 citations	44069 48 h-index	54911 84 g-index
89 all docs	89 docs citations	89 times ranked	7949 citing authors

#	Article	IF	Citations
1	Anaerobic ammonium oxidation by anammox bacteria in the Black Sea. Nature, 2003, 422, 608-611.	27.8	1,081
2	Revising the nitrogen cycle in the Peruvian oxygen minimum zone. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 4752-4757.	7.1	677
3	From The Cover: Massive nitrogen loss from the Benguela upwelling system through anaerobic ammonium oxidation. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 6478-6483.	7.1	664
4	Linking crenarchaeal and bacterial nitrification to anammox in the Black Sea. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 7104-7109.	7.1	493
5	Anammox bacteria disguised as denitrifiers: nitrate reduction to dinitrogen gas via nitrite and ammonium. Environmental Microbiology, 2007, 9, 635-642.	3.8	462
6	Anaerobic ammonium oxidation in the Peruvian oxygen minimum zone. Limnology and Oceanography, 2007, 52, 923-933.	3.1	315
7	Anaerobic ammonium-oxidizing bacteria in marine environments: widespread occurrence but low diversity. Environmental Microbiology, 2007, 9, 1476-1484.	3.8	307
8	Detoxification of sulphidic African shelf waters by blooming chemolithotrophs. Nature, 2009, 457, 581-584.	27.8	297
9	Nitrogen cycling driven by organic matter export in the South Pacific oxygen minimum zone. Nature Geoscience, 2013, 6, 228-234.	12.9	295
10	Complex nitrogen cycling in the sponge Geodia barretti. Environmental Microbiology, 2009, 11, 2228-2243.	3.8	286
11	Doubling of marine dinitrogen-fixation rates based on direct measurements. Nature, 2012, 488, 361-364.	27.8	273
12	Nitrite oxidation in the Namibian oxygen minimum zone. ISME Journal, 2012, 6, 1200-1209.	9.8	244
13	Oxygen Sensitivity of Anammox and Coupled N-Cycle Processes in Oxygen Minimum Zones. PLoS ONE, 2011, 6, e29299.	2.5	228
14	The small unicellular diazotrophic symbiont, UCYN-A, is a key player in the marine nitrogen cycle. Nature Microbiology, 2016, 1, 16163.	13.3	194
15	Aerobic denitrification in permeable Wadden Sea sediments. ISME Journal, 2010, 4, 417-426.	9.8	189
16	Diatoms respire nitrate to survive dark and anoxic conditions. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5649-5654.	7.1	177
17	Provenance of present-day eolian dust collected off NW Africa. Journal of Geophysical Research, 2005, 110, .	3.3	174
18	Nitrogen isotope effects induced by anammox bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18994-18999.	7.1	174

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19	Biological and chemical sulfide oxidation in a Beggiatoa inhabited marine sediment. ISME Journal, 2007, 1, 341-353.	9.8	170
20	Heterotrophic organisms dominate nitrogen fixation in the South Pacific Gyre. ISME Journal, 2012, 6, 1238-1249.	9.8	162
21	Giant Hydrogen Sulfide Plume in the Oxygen Minimum Zone off Peru Supports Chemolithoautotrophy. PLoS ONE, 2013, 8, e68661.	2.5	158
22	Phenotypic heterogeneity driven by nutrient limitation promotes growth in fluctuating environments. Nature Microbiology, 2016, 1, 16055.	13.3	154
23	Evidence of nitrification and denitrification in high and low microbial abundance sponges. Marine Biology, 2010, 157, 593-602.	1.5	135
24	Denitrifying community in coastal sediments performs aerobic and anaerobic respiration simultaneously. ISME Journal, 2017, 11, 1799-1812.	9.8	126
25	Facets of diazotrophy in the oxygen minimum zone waters off Peru. ISME Journal, 2014, 8, 2180-2192.	9.8	121
26	Coâ€occurrence of denitrification and nitrogen fixation in a meromictic lake, Lake Cadagno (Switzerland). Environmental Microbiology, 2009, 11, 1945-1958.	3.8	119
27	Carbon and nitrogen fluxes associated with the cyanobacterium Aphanizomenon sp. in the Baltic Sea. ISME Journal, 2010, 4, 1215-1223.	9.8	106
28	Anammox bacteria and the anaerobic oxidation of ammonium in the oxygen minimum zone off northern Chile. Deep-Sea Research Part II: Topical Studies in Oceanography, 2009, 56, 1021-1031.	1.4	105
29	Aerobic Microbial Respiration In Oceanic Oxygen Minimum Zones. PLoS ONE, 2015, 10, e0133526.	2.5	99
30	Carbon, nitrogen and O2 fluxes associated with the cyanobacterium Nodularia spumigena in the Baltic Sea. ISME Journal, 2011, 5, 1549-1558.	9.8	98
31	The formation of a subsurface anticyclonic eddy in the <scp>P</scp>eruâ€<scp>C</scp>hile <scp>U</scp>ndercurrent and its impact on the nearâ€coastal salinity, oxygen, and nutrient distributions. Journal of Geophysical Research: Oceans, 2016, 121, 476-501.	2.6	95
32	Integrating biogeochemistry with multiomic sequence information in a model oxygen minimum zone. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5925-E5933.	7.1	94
33	Oxygen minimum zone cryptic sulfur cycling sustained by offshore transport of key sulfur oxidizing bacteria. Nature Communications, 2018, 9, 1729.	12.8	93
34	Water column anammox and denitrification in a temperate permanently stratified lake (Lake) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 142	2.8	90
35	Coupled nitrificationâ€“denitrification leads to extensive N loss in subtidal permeable sediments. Limnology and Oceanography, 2016, 61, 1033-1048.	3.1	90
36	N2-fixation, ammonium release and N-transfer to the microbial and classical food web within a plankton community. ISME Journal, 2016, 10, 450-459.	9.8	87

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37	Temperature response of denitrification and anaerobic ammonium oxidation rates and microbial community structure in <scp>A</scp>rctic fjord sediments. Environmental Microbiology, 2014, 16, 3331-3344.	3.8	84
38	Co-occurrence of denitrification and nitrogen fixation in a meromictic lake, Lake Cadagno (Switzerland). Environmental Microbiology, 2009, 11, 2190-2190.	3.8	75
39	The Fate of Nitrate in Intertidal Permeable Sediments. PLoS ONE, 2014, 9, e104517.	2.5	74
40	Intensive and extensive nitrogen loss from intertidal permeable sediments of the Wadden Sea. Limnology and Oceanography, 2012, 57, 185-198.	3.1	73
41	15N-Labeling Experiments to Dissect the Contributions of Heterotrophic Denitrification and Anammox to Nitrogen Removal in the OMZ Waters of the Ocean. Methods in Enzymology, 2011, 486, 223-251.	1.0	72
42	Responses of the coastal bacterial community to viral infection of the algae Phaeocystis globosa. ISME Journal, 2014, 8, 212-225.	9.8	68
43	Manganese(II) oxidation driven by lateral oxygen intrusions in the western Black Sea. Geochimica Et Cosmochimica Acta, 2005, 69, 2241-2252.	3.9	61
44	Simple approach for the preparation of 15â^'15N2-enriched water for nitrogen fixation assessments: evaluation, application and recommendations. Frontiers in Microbiology, 2015, 6, 769.	3.5	59
45	Dynamics and stoichiometry of nutrients and phytoplankton in waters influenced by the oxygen minimum zone in the eastern tropical Pacific. Deep-Sea Research Part I: Oceanographic Research Papers, 2012, 62, 20-31.	1.4	56
46	Methane stimulates massive nitrogen loss from freshwater reservoirs in India. Nature Communications, 2018, 9, 1265.	12.8	56
47	Anaerobic ammonium oxidation is a major N-sink in aquifer systems around the world. ISME Journal, 2020, 14, 151-163.	9.8	54
48	Impact of Temperature on Ladderane Lipid Distribution in Anammox Bacteria. Applied and Environmental Microbiology, 2010, 76, 1596-1603.	3.1	53
49	Shell biofilmâ€associated nitrous oxide production in marine molluscs: processes, precursors and relative importance. Environmental Microbiology, 2013, 15, 1943-1955.	3.8	51
50	Metabolic activity analyses demonstrate that Lokiarchaeon exhibits homoacetogenesis in sulfidic marine sediments. Nature Microbiology, 2020, 5, 248-255.	13.3	48
51	Anoxygenic Photosynthesis Controls Oxygenic Photosynthesis in a Cyanobacterium from a Sulfidic Spring. Applied and Environmental Microbiology, 2015, 81, 2025-2031.	3.1	41
52	Distribution of a consortium between unicellular algae and the <scp><scp>N₂</scp></scp> fixing cyanobacterium <scp>UCYN</scp>â€<scp>A</scp> in the North Atlantic Ocean. Environmental Microbiology, 2014, 16, 3153-3167.	3.8	38
53	Use of carbon monoxide and hydrogen by a bacteriaâ€“animal symbiosis from seagrass sediments. Environmental Microbiology, 2015, 17, 5023-5035.	3.8	37
54	Arcobacter peruensis sp. nov., a Chemolithoheterotroph Isolated from Sulfide- and Organic-Rich Coastal Waters off Peru. Applied and Environmental Microbiology, 2019, 85, .	3.1	36

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55	Diverse methylotrophic methanogenic archaea cause high methane emissions from seagrass meadows. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	36
56	Sulfur cycling in oceanic oxygen minimum zones. Limnology and Oceanography, 2021, 66, 2360-2392.	3.1	34
57	Small sinking particles control anammox rates in the Peruvian oxygen minimum zone. Nature Communications, 2021, 12, 3235.	12.8	33
58	H2S events in the Peruvian oxygen minimum zone facilitate enhanced dissolved Fe concentrations. Scientific Reports, 2018, 8, 12642.	3.3	32
59	Turbulence simultaneously stimulates small- and large-scale CO2 sequestration by chain-forming diatoms in the sea. Nature Communications, 2018, 9, 3046.	12.8	32
60	Rapid microbial diversification of dissolved organic matter in oceanic surface waters leads to carbon sequestration. Scientific Reports, 2020, 10, 13025.	3.3	32
61	Benthic Nitrogen Loss in the Arabian Sea Off Pakistan. Frontiers in Microbiology, 2012, 3, 395.	3.5	30
62	Filamentous Giant Beggiatoaceae from the Guaymas Basin Are Capable of both Denitrification and Dissimilatory Nitrate Reduction to Ammonium. Applied and Environmental Microbiology, 2018, 84, .	3.1	30
63	Direct determination of nitrogen cycling rates and pathways in Arctic fjord sediments (Svalbard,) Tj ETQq1 1 0.784314 rgBT /Overlock	3.1	30
64	Close association of active nitrifiers with <scp>B</scp>eggiatoa mats covering deepâ€sea hydrothermal sediments. Environmental Microbiology, 2014, 16, 1612-1626.	3.8	29
65	Metabolic versatility of a novel N₂â€fixing Alphaproteobacterium isolated from a marine oxygen minimum zone. Environmental Microbiology, 2018, 20, 755-768.	3.8	29
66	Aquatic Respiration Rate Measurements at Low Oxygen Concentrations. PLoS ONE, 2014, 9, e89369.	2.5	28
67	Direct determination of nitrogen cycling rates and pathways in Arctic fjord sediments (Svalbard,) Tj ETQq1 1 0.784314 rgBT /Overlock	3.1	27
68	Water column biogeochemistry of oxygen minimum zones in the eastern tropical North Atlantic and eastern tropical South Pacific oceans. Biogeosciences, 2016, 13, 3585-3606.	3.3	27
69	Metabolic specialization of denitrifiers in permeable sediments controls N₂O emissions. Environmental Microbiology, 2018, 20, 4486-4502.	3.8	27
70	Response of benthic nitrogen cycling to estuarine hypoxia. Limnology and Oceanography, 2021, 66, 652-666.	3.1	27
71	ANAEROBIC AMMONIUM OXIDATION IN THE MARINE ENVIRONMENT. , 2006, , 311-335.		23
72	A rainy northern Atacama Desert during the last interglacial. Geophysical Research Letters, 2010, 37, .	4.0	20

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73	High cell-specific rates of nitrogen and carbon fixation by the cyanobacteriumAphanizomenonsp. at low temperatures in the Baltic Sea. FEMS Microbiology Ecology, 2015, 91, fiv131.	2.7	20
74	Enhanced Nitrogen Loss by Eddy-Induced Vertical Transport in the Offshore Peruvian Oxygen Minimum Zone. PLoS ONE, 2017, 12, e0170059.	2.5	20
75	Extensive nitrogen loss from permeable sediments off Northâ€West Africa. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 1144-1157.	3.0	19
76	Accumulation of DOC in the South Pacific Subtropical Gyre from a molecular perspective. Marine Chemistry, 2021, 231, 103955.	2.3	18
77	Substrate Use of Pseudovibrio sp. Growing in Ultra-Oligotrophic Seawater. PLoS ONE, 2015, 10, e0121675.	2.5	17
78	Combined Gel Probe and Isotope Labeling Technique for Measuring Dissimilatory Nitrate Reduction to Ammonium in Sediments at Millimeter-Level Resolution. Applied and Environmental Microbiology, 2010, 76, 6239-6247.	3.1	16
79	Versatile cyanobacteria control the timing and extent of sulfide production in a Proterozoic analog microbial mat. ISME Journal, 2020, 14, 3024-3037.	9.8	14
80	Carbon and nitrogen turnover in the Arctic deep sea: in situ benthic community response to diatom and coccolithophorid phytodetritus. Biogeosciences, 2018, 15, 6537-6557.	3.3	13
81	Nitrate respiration and diel migration patterns of diatoms are linked in sediments underneath a microbial mat. Environmental Microbiology, 2021, 23, 1422-1435.	3.8	12
82	Mechanisms of P* Reduction in the Eastern Tropical South Pacific. Frontiers in Marine Science, 2017, 4, .	2.5	11
83	Massive Nitrogen Loss Over the Western Indian Continental Shelf During Seasonal Anoxia: Evidence From Isotope Pairing Technique. Frontiers in Marine Science, 2020, 7, .	2.5	10
84	Niche partitioning by photosynthetic plankton as a driver of CO2-fixation across the oligotrophic South Pacific Subtropical Ocean. ISME Journal, 2022, 16, 465-476.	9.8	10
85	The fate of upwelled nitrate off Peru shaped by submesoscale filaments and fronts. Biogeosciences, 2021, 18, 3605-3629.	3.3	7
86	Advection Drives Nitrate Past the Microphytobenthos in Intertidal Sands, Fueling Deeper Denitrification. Frontiers in Microbiology, 2021, 12, 556268.	3.5	0