

Lars Peter Nielsen

List of Publications by Year in descending order

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98
papers

10,468
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31902

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101
docs citations

101
times ranked

7405
citing authors

#	ARTICLE	IF	CITATIONS
1	METHODS FOR MEASURING DENITRIFICATION: DIVERSE APPROACHES TO A DIFFICULT PROBLEM. , 2006, 16, 2091-2122.		757
2	Pathways of organic carbon oxidation in three continental margin sediments. <i>Marine Geology</i> , 1993, 113, 27-40.	0.9	680
3	Filamentous bacteria transport electrons over centimetre distances. <i>Nature</i> , 2012, 491, 218-221.	13.7	475
4	Electric currents couple spatially separated biogeochemical processes in marine sediment. <i>Nature</i> , 2010, 463, 1071-1074.	13.7	447
5	Denitrification in sediment determined from nitrogen isotope pairing. <i>FEMS Microbiology Letters</i> , 1992, 86, 357-362.	0.7	442
6	Concentration and transport of nitrate by the mat-forming sulphur bacterium <i>Thioploca</i> . <i>Nature</i> , 1995, 374, 713-715.	13.7	410
7	Evidence for complete denitrification in a benthic foraminifer. <i>Nature</i> , 2006, 443, 93-96.	13.7	407
8	Widespread occurrence of nitrate storage and denitrification among Foraminifera and <i>Gromiida</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 1148-1153.	3.3	253
9	Seasonal variation in nitrification and denitrification in estuarine sediment colonized by benthic microalgae and bioturbating infauna. <i>Marine Ecology - Progress Series</i> , 1995, 126, 111-121.	0.9	236
10	Denitrification in nitrate-rich streams: Diurnal and seasonal variation related to benthic oxygen metabolism. <i>Limnology and Oceanography</i> , 1990, 35, 640-651.	1.6	235
11	Denitrification measurements in aquatic sediments: A comparison of three methods. <i>Biogeochemistry</i> , 1993, 23, 147-167.	1.7	214
12	Diurnal variation of denitrification and nitrification in sediments colonized by benthic microphytes. <i>Limnology and Oceanography</i> , 1994, 39, 573-579.	1.6	200
13	Nitrification and Denitrification in Lake and Estuarine Sediments Measured by the ^{15}N Dilution Technique and Isotope Pairing. <i>Applied and Environmental Microbiology</i> , 1993, 59, 2093-2098.	1.4	178
14	Kinetics, diffusional limitation and microscale distribution of chemistry and organisms in a CANON reactor. <i>FEMS Microbiology Ecology</i> , 2005, 51, 247-256.	1.3	170
15	Sulfur, iron-, and calcium cycling associated with natural electric currents running through marine sediment. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 92, 1-13.	1.6	165
16	Denitrification in sediment determined from nitrogen isotope pairing. <i>FEMS Microbiology Ecology</i> , 1992, 9, 357-361.	1.3	157
17	Anaerobic ammonium oxidation by marine and freshwater planctomycete-like bacteria. <i>Applied Microbiology and Biotechnology</i> , 2003, 63, 107-114.	1.7	156
18	Denitrification in estuarine sediment stimulated by the irrigation activity of the amphipod <i>Corophium volutator</i> . <i>Marine Ecology - Progress Series</i> , 1994, 105, 285-290.	0.9	156

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19	Denitrification and oxygen respiration in biofilms studied with a microsensor for nitrous oxide and oxygen. <i>Microbial Ecology</i> , 1990, 19, 63-72.	1.4	155
20	Microscale Distribution of Nitrification Activity in Sediment Determined with a Shielded Microsensor for Nitrate. <i>Applied and Environmental Microbiology</i> , 1993, 59, 3287-3296.	1.4	150
21	Microzonation of Denitrification Activity in Stream Sediments as Studied with a Combined Oxygen and Nitrous Oxide Microsensor. <i>Applied and Environmental Microbiology</i> , 1989, 55, 1234-1241.	1.4	140
22	Succession of cable bacteria and electric currents in marine sediment. <i>ISME Journal</i> , 2014, 8, 1314-1322.	4.4	134
23	On the evolution and physiology of cable bacteria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 19116-19125.	3.3	127
24	Combined Oxygen and Nitrous Oxide Microsensor for Denitrification Studies. <i>Applied and Environmental Microbiology</i> , 1988, 54, 2245-2249.	1.4	121
25	Denitrification and photosynthesis in stream sediment studied with microsensors and wholecore techniques. <i>Limnology and Oceanography</i> , 1990, 35, 1135-1144.	1.6	118
26	Denitrification, nitrate turnover, and aerobic respiration by benthic foraminiferans in the oxygen minimum zone off Chile. <i>Journal of Experimental Marine Biology and Ecology</i> , 2008, 359, 85-91.	0.7	117
27	Electric coupling between distant nitrate reduction and sulfide oxidation in marine sediment. <i>ISME Journal</i> , 2014, 8, 1682-1690.	4.4	115
28	Cable Bacteria in Freshwater Sediments. <i>Applied and Environmental Microbiology</i> , 2015, 81, 6003-6011.	1.4	112
29	Impact of Bacterial NO ₃ ⁻ Transport on Sediment Biogeochemistry. <i>Applied and Environmental Microbiology</i> , 2005, 71, 7575-7577.	1.4	108
30	Long-distance electron transfer by cable bacteria in aquifer sediments. <i>ISME Journal</i> , 2016, 10, 2010-2019.	4.4	107
31	Ecology of <i>Thioploca</i> spp.: Nitrate and Sulfur Storage in Relation to Chemical Microgradients and Influence of <i>Thioploca</i> spp. on the Sedimentary Nitrogen Cycle. <i>Applied and Environmental Microbiology</i> , 2001, 67, 5530-5537.	1.4	105
32	Denitrification by sulphur oxidizing <i>Beggiatoa</i> spp. mats on freshwater sediments. <i>Nature</i> , 1990, 344, 762-763.	13.7	104
33	Long-distance electron transport in individual, living cable bacteria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 5786-5791.	3.3	104
34	The geochemical fingerprint of microbial long-distance electron transport in the seafloor. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 152, 122-142.	1.6	94
35	Rethinking Sediment Biogeochemistry After the Discovery of Electric Currents. <i>Annual Review of Marine Science</i> , 2015, 7, 425-442.	5.1	93
36	Nitrogen balance of a temperate eelgrass <i>Zostera marina</i> bed. <i>Marine Ecology - Progress Series</i> , 1998, 174, 281-291.	0.9	93

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37	Phylogeny and distribution of nitrate-storing <i>Beggiatoa</i> spp. in coastal marine sediments. <i>Environmental Microbiology</i> , 2003, 5, 523-533.	1.8	91
38	Estuarine nitrogen retention independently estimated by the denitrification rate and mass balance methods: a study of Norsminde Fjord, Denmark. <i>Marine Ecology - Progress Series</i> , 1995, 119, 275-283.	0.9	90
39	Spatial and temporal variability of denitrification in the sediments of the northern Baltic Proper. <i>Marine Ecology - Progress Series</i> , 1998, 172, 13-24.	0.9	89
40	Denitrification and degassing in groundwater estimated from dissolved dinitrogen and argon. <i>Journal of Hydrology</i> , 1998, 208, 16-24.	2.3	88
41	Improved nitrogen removal by application of new nitrogen-cycle bacteria. <i>Reviews in Environmental Science and Biotechnology</i> , 2002, 1, 51-63.	3.9	88
42	Nitrous oxide emission by aquatic macrofauna. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 4296-4300.	3.3	88
43	Direct and indirect measurements of nitrification and denitrification in the rhizosphere of aquatic macrophytes. <i>Aquatic Microbial Ecology</i> , 1999, 19, 81-91.	0.9	85
44	Observations on microbial activity in acidified pig slurry. <i>Biosystems Engineering</i> , 2009, 102, 291-297.	1.9	77
45	Application of the isotope pairing technique in sediments where anammox and denitrification co-exist. <i>Limnology and Oceanography: Methods</i> , 2011, 1, 63-73.	1.0	72
46	Mapping electron sources and sinks in a marine biogeochemistry. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014, 119, 1475-1486.	1.3	68
47	Cable bacteria associated with long-distance electron transport in <i>N</i> and <i>E</i> salt marsh sediment. <i>Environmental Microbiology Reports</i> , 2015, 7, 175-179.	1.0	63
48	Physiology and behaviour of marine <i>Thioploca</i> . <i>ISME Journal</i> , 2009, 3, 647-657.	4.4	62
49	Massive developments of microbial mats following phytoplankton blooms in a naturally eutrophic bay: Implications for nitrogen cycling. <i>Limnology and Oceanography</i> , 2001, 46, 821-832.	1.6	61
50	Nitrogen transformations in microenvironments of river beds and riparian zones. <i>Ecological Engineering</i> , 2005, 24, 447-455.	1.6	61
51	EFFECTS OF ZINC PYRITHIONE AND COPPER PYRITHIONE ON MICROBIAL COMMUNITY FUNCTION AND STRUCTURE IN SEDIMENTS. <i>Environmental Toxicology and Chemistry</i> , 2004, 23, 921.	2.2	60
52	Transient N ₂ O accumulation and emission caused by O ₂ depletion in soil after liquid manure injection. <i>European Journal of Soil Science</i> , 2011, 62, 541-550.	1.8	60
53	Denitrification in a trickling filter biofilm studied by a microsensor for oxygen and nitrous oxide. <i>Water Research</i> , 1989, 23, 867-871.	5.3	59
54	Resilience of Pelagic and Benthic Microbial Communities to Sediment Resuspension in a Coastal Ecosystem, Knebel Vig, Denmark. <i>Estuarine, Coastal and Shelf Science</i> , 1996, 42, 405-415.	0.9	59

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55	Denitrification in a coastal sediment measured in situ by the nitrogen isotope pairing technique applied to a benthic flux chamber. <i>Marine Ecology - Progress Series</i> , 1996, 137, 181-186.	0.9	57
56	The Cell Envelope Structure of Cable Bacteria. <i>Frontiers in Microbiology</i> , 2018, 9, 3044.	1.5	53
57	Molecular Dissection of Bacterial Nanowires. <i>MBio</i> , 2013, 4, e00270-13.	1.8	51
58	Nitrification and Coupled Nitrification&Denitrification Associated with a Soil&Manure Interface. <i>Soil Science Society of America Journal</i> , 1996, 60, 1829-1840.	1.2	49
59	A novel microsensor for determination of apparent diffusivity in sediments. <i>Limnology and Oceanography</i> , 1998, 43, 986-992.	1.6	49
60	Distribution and Rate of Microbial Processes in an Ammonia-Loaded Air Filter Biofilm. <i>Applied and Environmental Microbiology</i> , 2009, 75, 3705-3713.	1.4	47
61	Nitrogen transformations in stratified aquatic microbial ecosystems. <i>Antonie Van Leeuwenhoek</i> , 2006, 90, 361-375.	0.7	46
62	Motility of Electric Cable Bacteria. <i>Applied and Environmental Microbiology</i> , 2016, 82, 3816-3821.	1.4	46
63	In vitro single-cell dissection revealing the interior structure of cable bacteria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 8517-8522.	3.3	45
64	Cable bacteria reduce methane emissions from rice-vegetated soils. <i>Nature Communications</i> , 2020, 11, 1878.	5.8	44
65	Shell Biofilm Nitrification and Gut Denitrification Contribute to Emission of Nitrous Oxide by the Invasive Freshwater Mussel <i>Dreissena polymorpha</i> (Zebra Mussel). <i>Applied and Environmental Microbiology</i> , 2012, 78, 4505-4509.	1.4	42
66	Methane microprofiles in a sewage biofilm determined with a microscale biosensor. <i>Water Research</i> , 2001, 35, 1379-1386.	5.3	41
67	Cable bacteria extend the impacts of elevated dissolved oxygen into anoxic sediments. <i>ISME Journal</i> , 2021, 15, 1551-1563.	4.4	41
68	Oxygen Distribution and Potential Ammonia Oxidation in Floating, Liquid Manure Crusts. <i>Journal of Environmental Quality</i> , 2010, 39, 1813-1820.	1.0	38
69	Greenhouse Gas Microbiology in Wet and Dry Straw Crust Covering Pig Slurry. <i>Journal of Environmental Quality</i> , 2009, 38, 1311-1319.	1.0	36
70	Regulation of ammonia oxidation in biotrickling airfilters with high ammonium load. <i>Chemical Engineering Journal</i> , 2011, 167, 198-205.	6.6	36
71	Electric potential microelectrode for studies of electrobiogeophysics. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014, 119, 1906-1917.	1.3	35
72	The rhizosphere of aquatic plants is a habitat for cable bacteria. <i>FEMS Microbiology Ecology</i> , 2019, 95, .	1.3	33

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73	Biogas upgrading with hydrogenotrophic methanogenic biofilms. <i>Bioresource Technology</i> , 2019, 287, 121422.	4.8	33
74	Long-distance electron transfer in a filamentous Gram-positive bacterium. <i>Nature Communications</i> , 2021, 12, 1709.	5.8	33
75	Bacterial community structure of a full-scale biofilter treating pig house exhaust air. <i>Systematic and Applied Microbiology</i> , 2011, 34, 344-352.	1.2	32
76	Cable bacteria at oxygen-releasing roots of aquatic plants: a widespread and diverse plant-microbe association. <i>New Phytologist</i> , 2021, 232, 2138-2151.	3.5	32
77	Efficient long-range conduction in cable bacteria through nickel protein wires. <i>Nature Communications</i> , 2021, 12, 3996.	5.8	32
78	Extreme Emission of N ₂ O from Tropical Wetland Soil (Pantanal, South America). <i>Frontiers in Microbiology</i> , 2012, 3, 433.	1.5	29
79	Simultaneous measurement of benthic denitrification, with the isotope pairing technique and the N ₂ flux method in a continuous flow-through system. <i>Water Research</i> , 1998, 32, 3371-3377.	5.3	28
80	Oxygen consumption of individual cable bacteria. <i>Science Advances</i> , 2021, 7, .	4.7	28
81	Denitrification in exposed intertidal mud-flats, measured with a new ¹⁵ N-ammonium spray technique. <i>Marine Ecology - Progress Series</i> , 2001, 209, 35-42.	0.9	22
82	Distribution, ecology and molecular identification of Thioploca from Danish brackish water sediments. <i>FEMS Microbiology Ecology</i> , 2010, 73, no-no.	1.3	19
83	Denitrification in a soft bottom lake: evaluation of laboratory incubations. <i>Aquatic Microbial Ecology</i> , 1999, 17, 279-287.	0.9	19
84	Seasonal Methane Oxidation Potential in Manure Crusts. <i>Applied and Environmental Microbiology</i> , 2013, 79, 407-410.	1.4	18
85	Hot moments of N ₂ O transformation and emission in tropical soils from the Pantanal and the Amazon (Brazil). <i>Soil Biology and Biochemistry</i> , 2014, 75, 26-36.	4.2	18
86	The Lotus japonicus ndx gene family is involved in nodule function and maintenance. <i>Plant Molecular Biology</i> , 2003, 52, 303-316.	2.0	17
87	How to grow your cable bacteria: Establishment of a stable single-strain culture in sediment and proposal of Candidatus Electronema aureum GS. <i>Systematic and Applied Microbiology</i> , 2021, 44, 126236.	1.2	16
88	A Method for Estimating Mass-Transfer Coefficients in a Biofilter from Membrane Inlet Mass Spectrometer Data. <i>Journal of the Air and Waste Management Association</i> , 2009, 59, 155-162.	0.9	15
89	Microsensor for in situ flow measurements in benthic boundary layers at submillimeter resolution with extremely slow flow. <i>Limnology and Oceanography: Methods</i> , 2007, 5, 185-191.	1.0	12
90	Controls of Sediment Nitrogen Dynamics in Tropical Coastal Lagoons. <i>PLoS ONE</i> , 2016, 11, e0155586.	1.1	12

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91	In situ measurements reveal extremely low pH in soil. <i>Soil Biology and Biochemistry</i> , 2017, 115, 63-65.	4.2	11
92	Reply to the note by Middelburg et al. <i>Limnology and Oceanography</i> , 1996, 41, 1845-1846.	1.6	9
93	Removal of hydrogen sulphide from pig house using biofilter with fungi. <i>Biosystems Engineering</i> , 2018, 167, 32-39.	1.9	9
94	Intracellular calcite and sulfur dynamics of <i>Achromatium</i> cells observed in a lab-based enrichment and aerobic incubation experiment. <i>Antonie Van Leeuwenhoek</i> , 2019, 112, 263-274.	0.7	8
95	Denitrification, nitrification and nitrogen assimilation in photosynthetic microbial mats. , 1994, , 319-324.		8
96	Pili for nanowires. <i>Nature Microbiology</i> , 2021, 6, 1347-1348.	5.9	8
97	Ecology: Electrical Cable Bacteria Save Marine Life. <i>Current Biology</i> , 2016, 26, R32-R33.	1.8	7
98	Sediment Denitrification in Two Contrasting Tropical Shallow Lagoons. <i>Estuaries and Coasts</i> , 2016, 39, 657-663.	1.0	7