

# Lars Peter Nielsen

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/5874326/lars-peter-nielsen-publications-by-citations.pdf>

**Version:** 2024-04-26

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

98  
papers

8,095  
citations

48  
h-index

89  
g-index

100  
ext. papers

8,989  
ext. citations

8.5  
avg, IF

5.71  
L-index

| #  | Paper   | IF   | Citations |
|----|---|------|-----------|
| 98 | Methods for measuring denitrification: diverse approaches to a difficult problem <b>2006</b> , 16, 2091-122   |      | 644       |
| 97 | Pathways of organic carbon oxidation in three continental margin sediments. <i>Marine Geology</i> , <b>1993</b> , 113, 27-40  | 3.3  | 580       |
| 96 | Denitrification in sediment determined from nitrogen isotope pairing. <i>FEMS Microbiology Letters</i> , <b>1992</b> , 86, 357-362  | 2.9  | 411       |
| 95 | Filamentous bacteria transport electrons over centimetre distances. <i>Nature</i> , <b>2012</b> , 491, 218-21   | 50.4 | 364       |
| 94 | Concentration and transport of nitrate by the mat-forming sulphur bacterium <i>Thioploca</i> . <i>Nature</i> , <b>1995</b> , 374, 713-715   | 50.4 | 346       |
| 93 | Electric currents couple spatially separated biogeochemical processes in marine sediment. <i>Nature</i> , <b>2010</b> , 463, 1071-4   | 50.4 | 341       |
| 92 | Evidence for complete denitrification in a benthic foraminifer. <i>Nature</i> , <b>2006</b> , 443, 93-6   | 50.4 | 323       |
| 91 | Widespread occurrence of nitrate storage and denitrification among Foraminifera and Gromiida. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 1148-53 | 11.5 | 203       |
| 90 | Denitrification measurements in aquatic sediments: A comparison of three methods. <i>Biogeochemistry</i> , <b>1993</b> , 23, 147-167  | 3.8  | 186       |
| 89 | Seasonal variation in nitrification and denitrification in estuarine sediment colonized by benthic microalgae and bioturbating infauna. <i>Marine Ecology - Progress Series</i> , <b>1995</b> , 126, 111-121      | 2.6  | 176       |
| 88 | Denitrification in nitrate-rich streams: Diurnal and seasonal variation related to benthic oxygen metabolism. <i>Limnology and Oceanography</i> , <b>1990</b> , 35, 640-651                                       | 4.8  | 163       |
| 87 | Kinetics, diffusional limitation and microscale distribution of chemistry and organisms in a CANON reactor. <i>FEMS Microbiology Ecology</i> , <b>2005</b> , 51, 247-56   | 4.3  | 149       |
| 86 | Anaerobic ammonium oxidation by marine and freshwater planctomycete-like bacteria. <i>Applied Microbiology and Biotechnology</i> , <b>2003</b> , 63, 107-14   | 5.7  | 143       |
| 85 | Nitrification and denitrification in lake and estuarine sediments measured by the N dilution technique and isotope pairing. <i>Applied and Environmental Microbiology</i> , <b>1993</b> , 59, 2093-8              | 4.8  | 142       |
| 84 | Denitrification and oxygen respiration in biofilms studied with a microsensors for nitrous oxide and oxygen. <i>Microbial Ecology</i> , <b>1990</b> , 19, 63-72   | 4.4  | 136       |
| 83 | Diurnal variation of denitrification and nitrification in sediments colonized by benthic microphytes. <i>Limnology and Oceanography</i> , <b>1994</b> , 39, 573-579   | 4.8  | 132       |
| 82 | Sulfur, iron-, and calcium cycling associated with natural electric currents running through marine sediment. <i>Geochimica Et Cosmochimica Acta</i> , <b>2012</b> , 92, 1-13                                     | 5.5  | 123       |

|    |  |      |     |
|----|--|------|-----|
| 81 | Denitrification in estuarine sediment stimulated by the irrigation activity of the amphipod <i>Corophium volutator</i> . <i>Marine Ecology - Progress Series</i> , <b>1994</b> , 105, 285-290  | 2.6  | 112 |
| 80 | 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> , <b>2008</b> , 359, 85-91  | 2.1  | 102 |
| 79 | Microscale distribution of nitrification activity in sediment determined with a shielded microsensor for nitrate. <i>Applied and Environmental Microbiology</i> , <b>1993</b> , 59, 3287-96  | 4.8  | 101 |
| 78 | Succession of cable bacteria and electric currents in marine sediment. <i>ISME Journal</i> , <b>2014</b> , 8, 1314-22  | 11.9 | 100 |
| 77 | Microzonation of denitrification activity in stream sediments as studied with a combined oxygen and nitrous oxide microsensor. <i>Applied and Environmental Microbiology</i> , <b>1989</b> , 55, 1234-41   | 4.8  | 98  |
| 76 | Denitrification by sulphur oxidizing <i>Beggiatoa</i> spp. mats on freshwater sediments. <i>Nature</i> , <b>1990</b> , 344, 762-763  | 50.4 | 95  |
| 75 | Impact of bacterial NO <sub>3</sub> (-) transport on sediment biogeochemistry. <i>Applied and Environmental Microbiology</i> , <b>2005</b> , 71, 7575-7  | 4.8  | 93  |
| 74 | Combined oxygen and nitrous oxide microsensor for denitrification studies. <i>Applied and Environmental Microbiology</i> , <b>1988</b> , 54, 2245-9  | 4.8  | 93  |
| 73 | 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> , <b>2001</b> , 67, 5530-7 | 4.8  | 89  |
| 72 | Denitrification and photosynthesis in stream sediment studied with microsensor and wholecore techniques. <i>Limnology and Oceanography</i> , <b>1990</b> , 35, 1135-1144   | 4.8  | 86  |
| 71 | Electric coupling between distant nitrate reduction and sulfide oxidation in marine sediment. <i>ISME Journal</i> , <b>2014</b> , 8, 1682-90   | 11.9 | 82  |
| 70 | Phylogeny and distribution of nitrate-storing <i>Beggiatoa</i> spp. in coastal marine sediments. <i>Environmental Microbiology</i> , <b>2003</b> , 5, 523-33   | 5.2  | 81  |
| 69 | Improved nitrogen removal by application of new nitrogen-cycle bacteria. <i>Reviews in Environmental Science and Biotechnology</i> , <b>2002</b> , 1, 51-63  | 13.9 | 77  |
| 68 | Nitrous oxide emission by aquatic macrofauna. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 4296-300   | 11.5 | 74  |
| 67 | Denitrification and degassing in groundwater estimated from dissolved dinitrogen and argon. <i>Journal of Hydrology</i> , <b>1998</b> , 208, 16-24   | 6    | 73  |
| 66 | 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> , <b>1995</b> , 119, 275-283                                   | 2.6  | 72  |
| 65 | Application of the isotope pairing technique in sediments where anammox and denitrification co-exist. <i>Limnology and Oceanography: Methods</i> , <b>2011</b> , 1, 63-73  | 2.6  | 72  |
| 64 | Spatial and temporal variability of denitrification in the sediments of the northern Baltic Proper. <i>Marine Ecology - Progress Series</i> , <b>1998</b> , 172, 13-24   | 2.6  | 71  |

|    |   |      |    |
|----|---|------|----|
| 63 | Cable Bacteria in Freshwater Sediments. <i>Applied and Environmental Microbiology</i> , <b>2015</b> , 81, 6003-11   | 4.8  | 68 |
| 62 | Direct and indirect measurements of nitrification and denitrification in the rhizosphere of aquatic macrophytes. <i>Aquatic Microbial Ecology</i> , <b>1999</b> , 19, 81-91                           | 1.1  | 68 |
| 61 | Long-distance electron transfer by cable bacteria in aquifer sediments. <i>ISME Journal</i> , <b>2016</b> , 10, 2010-9  | 11.9 | 68 |
| 60 | The geochemical fingerprint of microbial long-distance electron transport in the seafloor. <i>Geochimica Et Cosmochimica Acta</i> , <b>2015</b> , 152, 122-142  | 5.5  | 65 |
| 59 | Observations on microbial activity in acidified pig slurry. <i>Biosystems Engineering</i> , <b>2009</b> , 102, 291-297  | 4.8  | 63 |
| 58 | Long-distance electron transport in individual, living cable bacteria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 5786-5791          | 11.5 | 62 |
| 57 | On the evolution and physiology of cable bacteria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 19116-19125                            | 11.5 | 61 |
| 56 | Nitrogen balance of a temperate eelgrass <i>Zostera marina</i> bed. <i>Marine Ecology - Progress Series</i> , <b>1998</b> , 174, 281-291  | 2.6  | 61 |
| 55 | Rethinking sediment biogeochemistry after the discovery of electric currents. <i>Annual Review of Marine Science</i> , <b>2015</b> , 7, 425-42  | 15.4 | 60 |
| 54 | Physiology and behaviour of marine Thioploca. <i>ISME Journal</i> , <b>2009</b> , 3, 647-57   | 11.9 | 54 |
| 53 | Effects of zinc pyrithione and copper pyrithione on microbial community function and structure in sediments. <i>Environmental Toxicology and Chemistry</i> , <b>2004</b> , 23, 921-8                  | 3.8  | 53 |
| 52 | Mapping electron sources and sinks in a marine biogeochemical battery. <i>Journal of Geophysical Research G: Biogeosciences</i> , <b>2014</b> , 119, 1475-1486  | 3.7  | 52 |
| 51 | Nitrogen transformations in microenvironments of river beds and riparian zones. <i>Ecological Engineering</i> , <b>2005</b> , 24, 447-455   | 3.9  | 52 |
| 50 | Massive developments of microbial mats following phytoplankton blooms in a naturally eutrophic bay: Implications for nitrogen cycling. <i>Limnology and Oceanography</i> , <b>2001</b> , 46, 821-832  | 4.8  | 48 |
| 49 | Resilience of Pelagic and Benthic Microbial Communities to Sediment Resuspension in a Coastal Ecosystem, Knebel Vig, Denmark. <i>Estuarine, Coastal and Shelf Science</i> , <b>1996</b> , 42, 405-415 | 2.9  | 48 |
| 48 | Denitrification in sediment determined from nitrogen isotope pairing. <i>FEMS Microbiology Ecology</i> , <b>1992</b> , 9, 357-361   | 4.3  | 48 |
| 47 | Denitrification in a trickling filter biofilm studied by a microsensor for oxygen and nitrous oxide. <i>Water Research</i> , <b>1989</b> , 23, 867-871  | 12.5 | 48 |
| 46 | Molecular dissection of bacterial nanowires. <i>MBio</i> , <b>2013</b> , 4, e00270-13   | 7.8  | 46 |

|    |  |      |    |
|----|--|------|----|
| 45 | Distribution and rate of microbial processes in an ammonia-loaded air filter biofilm. <i>Applied and Environmental Microbiology</i> , <b>2009</b> , 75, 3705-13  | 4.8  | 45 |
| 44 | Cable bacteria associated with long-distance electron transport in New England salt marsh sediment. <i>Environmental Microbiology Reports</i> , <b>2015</b> , 7, 175-9   | 3.7  | 44 |
| 43 | Transient N <sub>2</sub> O accumulation and emission caused by O <sub>2</sub> depletion in soil after liquid manure injection. <i>European Journal of Soil Science</i> , <b>2011</b> , 62, 541-550   | 3.4  | 44 |
| 42 | Nitrification and Coupled Nitrification-Denitrification Associated with a Soil-Manure Interface. <i>Soil Science Society of America Journal</i> , <b>1996</b> , 60, 1829-1840  | 2.5  | 41 |
| 41 | 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> , <b>1996</b> , 137, 181-186   | 2.6  | 41 |
| 40 | Nitrogen transformations in stratified aquatic microbial ecosystems. <i>Antonie Van Leeuwenhoek</i> , <b>2006</b> , 90, 361-75   | 2.1  | 40 |
| 39 | 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> , <b>2012</b> , 78, 4505-9 | 4.8  | 35 |
| 38 | A novel microsensor for determination of apparent diffusivity in sediments. <i>Limnology and Oceanography</i> , <b>1998</b> , 43, 986-992  | 4.8  | 35 |
| 37 | Methane microprofiles in a sewage biofilm determined with a microscale biosensor. <i>Water Research</i> , <b>2001</b> , 35, 1379-86  | 12.5 | 33 |
| 36 | Oxygen distribution and potential ammonia oxidation in floating, liquid manure crusts. <i>Journal of Environmental Quality</i> , <b>2010</b> , 39, 1813-20   | 3.4  | 32 |
| 35 | Regulation of ammonia oxidation in biotrickling airfilters with high ammonium load. <i>Chemical Engineering Journal</i> , <b>2011</b> , 167, 198-205   | 14.7 | 31 |
| 34 | 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> , <b>2018</b> , 115, 8517-8522  | 11.5 | 30 |
| 33 | Electric potential microelectrode for studies of electrobiogeophysics. <i>Journal of Geophysical Research G: Biogeosciences</i> , <b>2014</b> , 119, 1906-1917   | 3.7  | 30 |
| 32 | Greenhouse gas microbiology in wet and dry straw crust covering pig slurry. <i>Journal of Environmental Quality</i> , <b>2009</b> , 38, 1311-9   | 3.4  | 30 |
| 31 | The Cell Envelope Structure of Cable Bacteria. <i>Frontiers in Microbiology</i> , <b>2018</b> , 9, 3044  | 5.7  | 30 |
| 30 | Bacterial community structure of a full-scale biofilter treating pig house exhaust air. <i>Systematic and Applied Microbiology</i> , <b>2011</b> , 34, 344-52  | 4.2  | 29 |
| 29 | Motility of Electric Cable Bacteria. <i>Applied and Environmental Microbiology</i> , <b>2016</b> , 82, 3816-21   | 4.8  | 29 |
| 28 | Biogas upgrading with hydrogenotrophic methanogenic biofilms. <i>Bioresource Technology</i> , <b>2019</b> , 287, 121422  | 11   | 24 |

|    |   |      |    |
|----|---|------|----|
| 27 | Simultaneous measurement of benthic denitrification, with the isotope pairing technique and the N <sub>2</sub> flux method in a continuous flow-through system. <i>Water Research</i> , <b>1998</b> , 32, 3371-3377 | 12.5 | 22 |
| 26 | Extreme emission of n(2)o from tropical wetland soil (pantanal, South america). <i>Frontiers in Microbiology</i> , <b>2012</b> , 3, 433   | 5.7  | 21 |
| 25 | The rhizosphere of aquatic plants is a habitat for cable bacteria. <i>FEMS Microbiology Ecology</i> , <b>2019</b> , 95,   | 4.3  | 20 |
| 24 | Distribution, ecology and molecular identification of Thioploca from Danish brackish water sediments. <i>FEMS Microbiology Ecology</i> , <b>2010</b> , 73, 110-20   | 4.3  | 19 |
| 23 | The Lotus japonicus ndx gene family is involved in nodule function and maintenance. <i>Plant Molecular Biology</i> , <b>2003</b> , 52, 303-16   | 4.6  | 17 |
| 22 | Denitrification in exposed intertidal mud-flats, measured with a new 15N-ammonium spray technique. <i>Marine Ecology - Progress Series</i> , <b>2001</b> , 209, 35-42   | 2.6  | 17 |
| 21 | Denitrification in a soft bottom lake: evaluation of laboratory incubations. <i>Aquatic Microbial Ecology</i> , <b>1999</b> , 17, 279-287   | 1.1  | 16 |
| 20 | Hot moments of N <sub>2</sub> O transformation and emission in tropical soils from the Pantanal and the Amazon (Brazil). <i>Soil Biology and Biochemistry</i> , <b>2014</b> , 75, 26-36                             | 7.5  | 15 |
| 19 | Seasonal methane oxidation potential in manure crusts. <i>Applied and Environmental Microbiology</i> , <b>2013</b> , 79, 407-10   | 4.8  | 15 |
| 18 | Cable bacteria reduce methane emissions from rice-vegetated soils. <i>Nature Communications</i> , <b>2020</b> , 11, 1878  | 17.4 | 14 |
| 17 | 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> , <b>2009</b> , 59, 155-162                | 2.4  | 14 |
| 16 | Cable bacteria extend the impacts of elevated dissolved oxygen into anoxic sediments. <i>ISME Journal</i> , <b>2021</b> , 15, 1551-1563   | 11.9 | 11 |
| 15 | Reply to the note by Middelburg et al. <i>Limnology and Oceanography</i> , <b>1996</b> , 41, 1845-1846  | 4.8  | 9  |
| 14 | Controls of Sediment Nitrogen Dynamics in Tropical Coastal Lagoons. <i>PLoS ONE</i> , <b>2016</b> , 11, e0155586  | 3.7  | 9  |
| 13 | Efficient long-range conduction in cable bacteria through nickel protein wires. <i>Nature Communications</i> , <b>2021</b> , 12, 3996   | 17.4 | 9  |
| 12 | Microsensor for in situ flow measurements in benthic boundary layers at submillimeter resolution with extremely slow flow. <i>Limnology and Oceanography: Methods</i> , <b>2007</b> , 5, 185-191                    | 2.6  | 8  |
| 11 | Oxygen consumption of individual cable bacteria. <i>Science Advances</i> , <b>2021</b> , 7,   | 14.3 | 8  |
| 10 | Removal of hydrogen sulphide from pig house using biofilter with fungi. <i>Biosystems Engineering</i> , <b>2018</b> , 167, 32-39  | 4.8  | 7  |

|   |   |      |   |
|---|---|------|---|
| 9 | Long-distance electron transfer in a filamentous Gram-positive bacterium. <i>Nature Communications</i> , <b>2021</b> , 12, 1709   | 17.4 | 7 |
| 8 | Cable bacteria at oxygen-releasing roots of aquatic plants: a widespread and diverse plant-microbe association. <i>New Phytologist</i> , <b>2021</b> , 232, 2138-2151   | 9.8  | 7 |
| 7 | Sediment Denitrification in Two Contrasting Tropical Shallow Lagoons. <i>Estuaries and Coasts</i> , <b>2016</b> , 39, 657-663   | 2.8  | 6 |
| 6 | In situ measurements reveal extremely low pH in soil. <i>Soil Biology and Biochemistry</i> , <b>2017</b> , 115, 63-65   | 7.5  | 6 |
| 5 | 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> , <b>2019</b> , 112, 263-274                     | 2.1  | 6 |
| 4 | Ecology: Electrical Cable Bacteria Save Marine Life. <i>Current Biology</i> , <b>2016</b> , 26, R32-3   | 6.3  | 4 |
| 3 | Denitrification, nitrification and nitrogen assimilation in photosynthetic microbial mats <b>1994</b> , 319-324   |      | 4 |
| 2 | How to grow your cable bacteria: Establishment of a stable single-strain culture in sediment and proposal of <i>Candidatus Electronema aureum</i> GS. <i>Systematic and Applied Microbiology</i> , <b>2021</b> , 44, 126236 | 4.2  | 2 |
| 1 | Pili for nanowires. <i>Nature Microbiology</i> , <b>2021</b> , 6, 1347-1348   | 26.6 | 1 |