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Research outputs:

Abiotic Nitrous Oxide (N2O) Production Is Strongly pH Dependent, but Contributes Little to Overall N2O Emissions in Biological Nitrogen Removal Systems
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

The effect of pH on N2O production in intermittently-fed nitritation reactors
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

Diagnostics, Monitoring and Mitigation of N2O Emissions from Wastewater Treatment Operations – Outcomes of the LAGAS project
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2018 › Research › peer-review

Dynamics of nitrous oxide production pathways analysed by 15N18O dual isotope labelling – data from a full-scale wastewater treatment plant
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2015 › Research › peer-review

HEPWAT - Higher Environmental Performance in Wastewater Systems
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2018 › Research › peer-review

Nitrous oxide production in intermittently aerated Partial Nitritation-Anammox reactor: oxic N2O production dominates and relates with ammonia removal rate
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Reactor staging influences microbial community composition and diversity of denitrifying MBBRs- Implications on pharmaceutical removal
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

The pH dependency of N-converting enzymatic processes, pathways and microbes: effect on net N2O production
Research output: Contribution to journal › Review – Annual report year: 2018 › Research › peer-review

Where does N2O from Partial Nitritation-Anammox processes come from? – A high temporal resolution study of a lab-scale system gives answers
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2018 › Research › peer-review
Aquavalens Project - Report on the evaluation of data in comparison to "classical" data: Deliverable D10.5
Research output: Book/Report › Report – Annual report year: 2017 › Commissioned › peer-review

Aquavalens Project - Report on the results of the analysis in the distribution network: Deliverable D10.4
Research output: Book/Report › Report – Annual report year: 2017 › Commissioned › peer-review

Aquavalens Project - Report on the results of the analysis in the DWTP: Deliverable D10.3
Research output: Book/Report › Report – Annual report year: 2017 › Commissioned › peer-review

Dynamics of N₂O production pathways analyzed by ¹⁵N¹⁸O isotope labeling
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2017 › Research › peer-review

Heterotrophs are key contributors to nitrous oxide production in mixed liquor under low C-to-N ratios during nitrification - batch experiments and modelling
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Low nitrous oxide production through nitrifier-denitrification in intermittent-feed high-rate nitritation reactors
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Monitoring and Mitigation of N2O Emissions: An Example from a Wastewater Treatment Facility
Research output: Contribution to conference › Poster – Annual report year: 2018 › Research › peer-review

Operational strategies for mitigation of nitrous oxide emissions from a phase isolated fullscale WWTP
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2017 › Research › peer-review

Pathways and Controls of N₂O Production in Nitritation-Anammox Biomass
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Simple control rules for mitigating N₂O emissions in phase isolated fullscale WWTPs
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2017 › Research › peer-review

Simple control strategy for mitigating N₂O emissions in phase isolated full-scale WWTPs
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2017 › Research › peer-review

Does reactor staging influence microbial structure and functions in biofilm systems? The case of pre-denitrifying MBBRs
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2016 › Research › peer-review

Dynamics of N₂O production pathways in a full-scale activated sludge system analysed by ¹⁵N¹⁸O dual isotope labelling
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2017 › Research › peer-review

The influence of reactor staging on microbial structure and functions in pre-denitrifying MBBRs
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2017 › Research › peer-review

Aerobic Microbial Respiration In Oceanic Oxygen Minimum Zones
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review
Micro2-Managed Microbial Communities: Next Generation Environmental Bio/Technologies
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2011 › Research › peer-review

Origin and fate of the secondary nitrite maximum in the Arabian Sea
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Oxygen dependency of aerobic and anaerobic N-transformations in Oxygen Minimum Zones
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2011 › Research

Oxygen sensitivity of anammox and coupled N-cycle processes in oxygen minimum zones
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Aerobic denitrification in permeable Wadden Sea sediments.
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Authigenic clay formation following Fe-oxide reduction in a Fe-Si-C rich lake sediment
Research output: Contribution to journal › Conference abstract in journal – Annual report year: 2010 › Research › peer-review

nitrogen loss and microbial nitrogen cycling in three different oceanic oxygen minimum zones
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2010 › Research

Active expression of nitrogen cycling functional genes in the Arabian Sea oxygen minimum zone
Research output: Contribution to conference › Poster – Annual report year: 2009 › Research

Biogeochemistry of electron transfer at the iron oxide-solution interface in sediments
Research output: Contribution to journal › Conference abstract in journal – Annual report year: 2009 › Research › peer-review

New perspectives on nitrogen loss in oceanic oxygen minimum zones
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2009 › Research

New perspectives on water-column nitrogen cycling in oceanic oxygen minimum zones
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2009 › Research

Nitrogen transformations in the Arabian Sea oxygen minimum zone as revealed by combined 15N-incubation experiments and functional gene expression analyses
Research output: Contribution to conference › Poster – Annual report year: 2009 › Research

Pathways, rates, and regulation of N2 production in the chemocline of an anoxic basin, Mariager Fjord, Denmark
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Revising the nitrogen cycle in the Peruvian oxygen minimum zone.
Research output: Contribution to journal › Conference article – Annual report year: 2009 › Research › peer-review

Rates and regulation of anaerobic ammonium oxidation and denitrification in the Black Sea
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

Effects of Specific Inhibitors on Anammox and Denitrification in Marine Sediments
Research output: Contribution to journal › Journal article – Annual report year: 2007 › Research › peer-review
Linking crenarchaeal and bacterial nitrification to anammox in the Black Sea.
Research output: Contribution to journal › Journal article – Annual report year: 2007 › Research › peer-review

Anaerobic ammonium oxidation in the oxygen-deficient waters off northern Chile
Research output: Contribution to journal › Journal article – Annual report year: 2006 › Research › peer-review

Composition and diagenesis of neutral carbohydrates in sediments of the Baltic-North Sea transition
Research output: Contribution to journal › Journal article – Annual report year: 2005 › Research › peer-review

Rates and regulation of microbial iron reduction in sediments of the Baltic-North Sea transition
Research output: Contribution to journal › Journal article – Annual report year: 2003 › Research › peer-review

Organic matter degradation through oxygen respiration, denitrification, and manganese, iron, and sulfate reduction in marine sediment (the kategat and the skagerrak)
Research output: Contribution to journal › Journal article – Annual report year: 2001 › Research › peer-review

Projects:

Mechanisms and regulation of nitrous oxide (N2O) production during biological wastewater treatment
Project: PhD

Engineering microbial communities in granular autotrophic nitrogen removal systems by steering metabolic networks
Project: PhD

Controlling factors for nitrification in biological rapid sand filters for drinking water treatment
Project: PhD

Biogas enhancement and upgrading
Project: PhD

Activities:

Dynamics of N2O production pathways analyzed by 15N18O isotope labeling
Activity: Talks and presentations › Conference presentations

Diagnostics, monitoring and mitigation of N2O emissions from wastewater treatment operation - outcome of the LaGas project
Activity: Talks and presentations › Conference presentations

DTU Sustain 2017
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

DTU Sustain 2017
Activity: Attending an event › Participating in or organising a conference

Controls of N2O production pathways in nitritation-anammox biomass
Activity: Talks and presentations › Conference presentations

International workshop on marine geomicrobiology - A matter of energy
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.
Kortlægning af den bakterielle lattergasproduktion i aktivt slam ved hjælp af stabile isotoper  
Activity: Talks and presentations › Conference presentations

When is it produced, why is it produced and how to prevent nitrous oxide emissions? Main findings from a large nitrous oxide project in Denmark  
Activity: Talks and presentations › Conference presentations

Application of microbial communities in environmental biotechnology: from wastewater treatment to resource recovery  
Activity: Talks and presentations › Guest lectures, external teaching and course activities at other universities

Frem mod det energineutrale vandselskab  
Activity: Talks and presentations › Talks and presentations in private or public companies and organisations

EcoDesign MBR Centre  
Activity: Talks and presentations › Talks and presentations in private or public companies and organisations

Nitrogen loss in the intertidal permeable sediment: ph.d. defence  
Activity: Examinations and supervision › External examination

Press clippings:

De tre millimeter mellem os og Solen  
Press/Media: Press / Media