**Research outputs:**

1. **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

2. **Regulation of key N₂O production mechanisms during biological water treatment**
   Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

3. **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

4. **Application of the NDHA model to describe N₂O dynamics in activated sludge mixed culture biomass**
   Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2018 › Research › peer-review

5. **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

6. **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

7. **Model-based optimization biofilm based systems performing autotrophic nitrogen removal using the comprehensive NDHA model**
   Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2018 › Research › peer-review

8. **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

9. **Calibration of the comprehensive NDHA-N₂O dynamics model for nitrifier-enriched biomass using targeted respirometric assays**
   Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

10. **Calibration of the NDHA N₂O model via respirometric assays**
    Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2017 › Research › peer-review
Establishment and calibration of consensus process model for nitrous oxide dynamics in water quality engineering

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

Intermittent Aeration Suppresses Nitrite-Oxidizing Bacteria in Membrane-Aerated Biofilms: A Model-Based Explanation
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 nitrification 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

N2O and NO dynamics in AOB-enriched and mixed-culture biomass: experimental observations and model calibration
Research output: Contribution to conference › Poster – Annual report year: 2017 › Research › peer-review

N2O and NO dynamics in AOB-enriched and mixed-culture biomass: Experimental Observations and Model Calibration
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2017 › Research › peer-review

Nitrous oxide Production in Membrane-aerated Nitrifying Biofilms: Experimentation and Modelling
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2017 › Research › peer-review

N2O emissions from a single-stage partial nitritation/anammox granule-based reactor – a model based assessment
Research output: Contribution to conference › Poster – Annual report year: 2017 › Research › peer-review

A consilience model to describe N2O production during biological N removal
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Sources and propagation of uncertainty in N2O model predictions
Research output: Contribution to conference › Poster – Annual report year: 2016 › Research › peer-review

Suppression of nitrite-oxidizing bacteria in intermittently aerated biofilm reactors: a model-based explanation
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2017 › Research › peer-review

Suppression of nitrite-oxidizing bacteria in intermittently aerated biofilms: a model-based explanation
Research output: Contribution to conference › Poster – Annual report year: 2016 › Research › peer-review

Towards an optimal experimental design for N2O model calibration during biological nitrogen removal
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2016 › Research › peer-review

Challenges encountered calibrating N2O dynamics from mixed cultures
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2015 › Research › peer-review
Aeration Strategies To Mitigate Nitrous Oxide Emissions from Single-Stage Nitritation/Anammox Reactors
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Modelling N2O dynamics in the engineered N cycle: Evaluation of alternate model structures
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Critical assessment of extracellular polymeric substances extraction methods from mixed culture biomass
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Driving towards stratified aggregation in single-stage nitritation/anammox reactors by varying aeration regimes
Research output: Contribution to conference › Poster – Annual report year: 2013 › Research › peer-review

Microbial activity catalyzes oxygen transfer in membrane-aerated nitritating biofilm reactors
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Modelling N2O dynamics in the engineered N cycle: Observations, assumptions, knowns, and unknowns
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2013 › Research › peer-review

Nitrous Oxide and Nitric Oxide Emissions From Single-Stage Nitritation/Anammox Reactors Under Varying Aeration Regimes
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

In-situ microbial activity in membrane-aerated biofilms for autotrophic nitrogen conversion
Research output: Contribution to conference › Poster – Annual report year: 2012 › Research › peer-review

Projects:

Establishment and calibration of consensus process models of N2O dynamics
Project: PhD

Activities:

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

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

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

ICoN5: 5th International Conference on Nitrification
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

Frontiers International Conference on Wastewater Treatment (FiCWTM2017)
Activity: Attending an event › Participating in or organising a conference

N2O Expert Meeting and Workshop
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.