

ICoN5: List of Poster Presentations

Session: Sustainability and the N-cycle

Board	Presenting Author	Poster Title
1	Maximilian Nepel	Diversity of diazotrophic communities in temperate grassland soils and their response to elevated nutrient levels
2	Toshikazu Suenaga	Oxygen inhibitory effect to activity of N ₂ O-reducing bacteria varies at species level: Biokinetic analysis
3	Swatantar Kumar	Thiosulfate- and hydrogen-driven autotrophic denitrification by a model consortium enriched from groundwater of an oligotrophic limestone aquifer
4	Yuchun Yang	Nitrogen removal in conventional wastewater treatment plants that have been inoculated active anammox bacteria containing sludge
5	Henri Siljanen	Atmospheric nitrous oxide uptake in boreal spruce forest soil.
6	Xinda Lu	Differential responses of soil ammonia-oxidizing archaea and bacteria to temperature and depth under two different land uses
7	Tina Sanders	Inverse isotope effect and oxidation kinetics of marine nitrite-oxidizing pure cultures
8	Han Meng	Simultaneous removal of ammonium and methane in WWTPs with anammox activity in Taiwan
9	Rebecca Phillips	Chemocodenitrification: Alternative N ₂ production pathway bypasses the N ₂ O intermediate
10	Yao Zhang	Unravelling the ecological strategies of ammonia and nitrite oxidizers behind their "decoupling" in the ocean
11	Anne Taylor	Thermodynamic response of ammonia and nitrite oxidizers
12	Tina Sanders	Comparison of nitrification capacities in two tributaries to the North Sea
13	Sukhwan Yoon	Methanobactin secreted by <i>Methylosinus trichosporium</i> strain OB3b interferes with N ₂ O reduction in denitrifiers
14	Siegfried Vlaeminck	Major decrease in carbon footprint from animal slurry treatment: Operational strategy can virtually abolish N ₂ O emissions during nitrification/denitrification

Session: Engineered Systems

Board	Presenting Author	Poster Title
15	Thi Kinh Co	Counter-diffusion biofilms for simultaneous nitrification and denitrification reduce NO and N ₂ O emissions: Proof of concept based on depth-profile analysis
16	Carolina Suarez	The effect of biofilm thickness in nitrification communities
17	Eva Spieck	Candidatus <i>Nitrotoga</i> spp. competes with <i>Nitrospira defluvii</i> at low temperature in bioreactor experiments
18	Carlos Domingo-Felez	N ₂ O and NO dynamics in AOB-enriched and mixed-culture biomass: Experimental observations and model calibration
19	Akihiko Terada	Dependence of dissolved oxygen concentration on N ₂ O production pathway in a partial nitrifying bioreactor: The implication of N-nitrosation hybrid reaction
20	Tiago Akaboci	Microbial community response to temperature variation and transient anoxia in a mainstream nitrification-anammox reactor: insights into NOB outcompeting
21	Yulin Wang	Comammox and other ammonia oxidizer microorganisms in drinking water systems
22	Ali Nejdat	Acetate and propionate as possible selective agents for anammox diversity in mainstream wastewater
23	Aina Soler-Jofra	Importance of hydroxylamine in abiotic N ₂ O production: reaction kinetics and mitigation strategies
24	Marlies E.R. Christiaens	Bioreactor nitrification with <i>Nitromonas europaea</i> and <i>Nitrobacter winogradskyi</i> revealed sufficient halotolerance for urine treatment in space
25	Jeseth Delgado Vela	The impact of sulfide on nitrification: Implications for nitrification processes
27	Pamela Camejo	Unraveling the microbial response to micro-aerobic conditions of a distinctive ammonia-oxidizing bacterium (AOB)
28	Anwar Dawas	Limiting nitrite oxidation in a fixed bed-up flow nitrification reactor
29	Thomas Dobbeleers	Biological nutrient removal by aerobic nitrite granules treating slaughterhouse wastewater

Session: Biochemistry and Biomarkers

Board	Presenting Author	Poster Title
30	Wouter Versantvoort	A study of an NO-producing HAO homolog from the aerobic methanotroph <i>Methylacidiphilum fumariolicum</i> SolV
31	Christina Ferousi	Characterization of a hydroxylamine oxidoreductase that is tuned towards reductive catalysis
32	Simon Lindhoud	Characterization of a putative triheme from anammox bacteria reveals a non-canonical heme binding site
33	Aniela Mundinger	Molecular analysis of the nitrite-oxidation system of <i>Nitrospira moscoviensis</i>
34	Dimitra Sakoula	<i>In vivo</i> detection of bacterial ammonia monooxygenases for the reliable detection of comammox <i>Nitrospira</i>
35	Ping Han	Insights into copper homeostasis and ammonium tolerance of <i>Nitrososphaera gargensis</i> from an experimental evolution study
36	Arindam Ghatak	Root exudate characterization: BNI activity in Pearl Millet
37	Danielle Rushworth	Laboratory investigations of copper acquisition by the aerobic methanotroph <i>Methylosinus trichosporium</i> OB3b and the ammonia oxidizing archaeon <i>Nitrososphaera viennensis</i>
38	Gayathri Natarajan	Concurrent production and oxidation of ammonia from hydroxylamine by 'Ca. Brocadia'

Session: New Physiologies, New Organisms, New Interactions

Board	Presenting Author	Poster Title
39	Christopher Sedlacek	<i>Nitrososphaera gargensis</i> : Combating oxidative stress
40	Chie Katsuyama	Effects of ammonium and hydroxylamine on N ₂ O-producing pathways in <i>Nitrosomonas europaea</i> ATCC 19718 and <i>Nitrosomonas</i> sp. AL212 revealed by a ¹⁵ N tracer technique
41	Man-Young Jung	Biotic N ₂ O production under the aerobic condition by an ammonia-oxidizing archaeon, <i>Nitrosocosmicus oleophilus</i> MY3 in acidification
42	Anna Mueller	Targeted isolation of Nitrospinae and other marine nitrite oxidizers
43	Lianna Poghosyan	Comparative genome analyses of two distinct comammox <i>Nitrospira</i> from the terrestrial subsurface
44	Johanna Wiesinger	Elucidating the quorum sensing system of the comammox bacterium <i>Nitrospira inopinata</i>
45	Hidetoshi Urakawa	Ecophysiology and phylogeny of nitrifying microorganisms and their differential chemical toxicity responses
46	Rino Isshiki	Growth heterogeneity in pure cultures of nitrifiers
47	Nunzia Picone	Nitrosative stress in <i>Methylacidiphilum fumariolicum</i> SolV
48	Gabriela Fabiola Paredes Rojas	C, S and N metabolism in chemosynthetic marine nematode symbioses
49	Anne Daebeler	Cultivation and genome analysis of a novel, thermophilic ammonia-oxidizing thaumarchaeote
50	Hirotsugu Fujitani	Comparative genomics of phylogenetically distinct two <i>Nitrospira</i> strains isolated from activated sludge
51	Kento Ishii	Genome-informed isolation of nitrite oxidizer <i>Nitrotoga</i> sp.
52	Frauke Baymann	Reflections on anammox metabolism
53	Jie Pan	Metagenomic analysis of microbial diversity and nitrogen, sulfur cycling in a hydrothermal vent site at the Mid-Atlantic Ridge
54	Yanping Mao	Novel nitrifiers and comammox in a full-scale wastewater treatment plant with hybrid activated sludge and biofilm processes
55	Michael Melcher	Physiology and metabolic predictions of a thermophilic Thaumarchaeon
56	Muhammad Ali	Comparative genome-resolved analysis of Two physiologically distant ANAMMOX cultures
57	Barbara Bayer	Comparative proteomics of three <i>Nitrosopumilus</i> species and their interaction with a heterotrophic Alphaproteobacterium
58	Tom Vandekerckhove	Characterizing stoichiometry and kinetics of two thermophilic nitrification communities: a crucial step in the development of thermophilic biotechnology for nitrogen removal

59	Meng Li	Genomic and transcriptomic resolution of metabolisms for ubiquitous uncultured archaea
60	Justyna Hampel	Water column ammonium dynamics and cyanobacterial blooms in two large, eutrophic, freshwater lakes: Lake Taihu (China) and Lake Okeechobee (Florida).
61	Sukhwan Yoon	Nitrous oxide reduction by an obligate aerobic bacterium <i>Gemmatimonas aurantiaca</i> strain T-27

Session: Evolution and Ecology

Board	Presenting Author	Poster Title
62	Xiaowei Zhang	Global ecological pattern of nitrite dependent methane-oxidizing bacteria
63	Graeme Nicol	Determining the influence of pH on nitrite oxidising bacteria and comammox <i>Nitrospira</i> in soil
64	Graeme Nicol	Loss and horizontal transfer of genes encoding ammonium transporters in ammonia oxidising archaea
65	Queralt Güell-Bujons	Community ecology and ecophysiology of nitrite oxidizers from saline-alkaline lakes. Insights in identity, dynamics, and adaptations
66	Yang Liu	Niche specialization of the nitrogen transforming functional genes in mangrove and intertidal mudflats revealed by metagenomics analysis
67	Michael Lukumbuzya	Nitrifying microcolonies from activated sludge: A look at mini metagenomes
68	Hannah Marchant	Simultaneous denitrification and aerobic respiration in sandy sediments
69	Tatsunori Nakagawa	Autotrophic carbon fixation stimulated by hydrogen peroxide scavengers in an ammonia-oxidizing archaeon <i>Nitrosopumilus</i> sp. NM25 isolated from eelgrass zone sediment
70	Jiaqi Wang	Metagenomics reveals active microbial methane oxidation in paddy field
71	Anne Bernhard	Biogeography of salt marsh ammonia oxidizers: Comparisons between Gulf of Mexico and New England marshes
72	Hongyue Dang	Unique <i>nifH</i> -harboring microbiota in methane seep sediments of the Okhotsk Sea
73	Sanni L. Aalto	Wastewater-driven changes in the sediment microbial community
74	Craig Herbold	Large-scale genomic sequencing and genome-based systematics of betaproteobacterial ammonia oxidizers
75	Jane Fowler	Niche partitioning within genus <i>Nitrospira</i> is affected by environmental copper concentration
76	Linda Hink	The consequences of ammonia oxidiser niche specialisation for mitigation of nitrous oxide emissions
77	Jiajie Hu	Niche differentiation of ammonia-oxidizing archaea (AOA) and ammonia-oxidizing bacteria (AOB) in different ecosystems
78	Martina Herrmann	Hotspots of anammox and nitrification in oligotrophic karstic limestone aquifers
79	Chiara Ilgrande	Successful nitrification and organics oxidation in urine with a synthetic microbial community: A key enabler for bioregenerative life support systems in Space
80	Miguel Semedo	Antibiotic impacts on microbial N ₂ O sink communities in grassland soils
81	Mike Jetten	Metagenomic analysis of nitrogen cycling in various oxygen-limited ecosystems
82	Marta Kinnunen	Dramatic loss of comammox <i>Nitrospira</i> associated with long-term nitrite feeding
83	James T. Hollibaugh	Dynamics of Thaumarchaeota populations in southeastern USA coastal waters
84	Ruonan Wu	Niche specialization and relatively functional importance of ammonia oxidizing archaea (AOA) and bacteria (AOB) in extremely acidic forest soils
85	Brett Mellbye	Quorum sensing during nitrification: who's talking now?

Early Career and Graduate Student Workshop

Board	Presenting Author	Poster Title
86	Julia Vierheilig	Effect of nitrification inhibitors on the activity of the comammox bacterium <i>Ca. Nitrospira inopinata</i>
87	Javier Betel Gejjo Fernández	Prediction of phenotypes for members of microbial communities

88	Logan Hodgskiss	Exploring the physiology of <i>Nitrososphaera viennensis</i> , an ammonia oxidizing archaeon from soil
89	Julian Damashek	Oxidation of polyamine nitrogen by Thaumarchaeota-dominated mixed communities and Thaumarchaeota isolates from the coastal ocean
90	Xin Sun	Dependence of nitrite oxidation on nitrite and oxygen in low oxygen seawater
91	Megumi Kuroiwa	Factors controlling nitrite production and its fates in a planted forest soil
92	Sebastian Schneider	Rhizobial nitrogenase biosynthesis in <i>Lotus japonicus</i> root nodules is limited by symbiotic sulfate transport

Poster presentation schedule:

All posters will be on display during the workshop and the whole ICoN5 conference.

Authors with **even board numbers** should be present at their posters during the poster session on **Monday (July 24, 2:00 to 4:00 pm)**.

Authors with **odd board numbers** should be present at their posters during the poster session on **Wednesday (July 26, 2:00 to 4:00 pm)**.