

Nordic Society for Aerosol Research (NOSA)

Symposium



20-22 January 2025, at the Department of Chemistry, Aarhus University, Denmark.



Monday, January 20, 2025:

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| 13:30 – 14:30 | Registration at the Department of Chemistry |
| 14:30 – 15:30 | Sigurd Christiansen – <i>“Marine Aerosols and Cloud Formation”</i> |
| 15:30 – 16:00 | Coffee break and exhibition. |
| 16:00 – 17:00 | Sara Blichner – <i>“Modelling aerosols in the Earth system”</i> |
| 17:00 – 18:00 | Icebreaker - Foyer |

Tuesday, January 21, 2025:

08:00 – 09:00 **Registration at the Department of Chemistry**

Oral session 1: From vapors to particles – SOA formation & composition

Chairs, TBD

09:00 – 09:15 **Welcome by the NOSA President**

09:15 – 09:45 **Mikael Ehn (UH)** – “SOA Formation Chemistry”

09:45 – 10:00 **Matthieu Riva (CNRS)** – “Resolving particle phase composition of SOA formed from the nighttime oxidation of a simulated urban environment using a newly designed online particle-phase chemical ionization technique.”

10:00 – 10:15 **Siddharth Iyer (TAU)** – “Sequential formation of condensable vapors in aromatic photo-oxidation”

10:15 – 10:45 **Coffee break and exhibition.**

Oral session 2: From vapors to particles – Theory, experiments and measurements

Chairs, TBD

10:45 – 11:00 **Adam Kristensson (LU)** – “New particle formation upwind of the ATOLL field site in northern France”

11:00 – 11:15 **Iida Pullinen (UEF)** – “Changes in peatland ecosystems: first look into aerosol formation potential”

11:15 – 11:30 **Ivo Neefjes (AU)** – “Developing machine learning potentials with accurate long-range interactions for atmospheric molecular dynamics collision simulations”

11:30 – 11:45 **Olga Garmash (UCPH)** – “Formation of oxygenated organic vapors and particles over the Siberian boreal forest”

11:45 – 13:00 **Lunch**

Oral session 3: Global and regional scale aerosol impacts

Chairs, TBD

13:00 – 13:30 **Colette L. Heald (ETHZ)** – “Global Scale Aerosol Processes & Impacts”

13:30 – 13:45 **Benjamin Foreback (UH)** – “Severe haze episodes in Beijing may have origins as far as 2000 km west”

13:45 – 14:00 **Gargi Sengupta (UO)** – “The climate impact of organic aerosol acid and base dissociation”

14:00 – 15:30 **Poster session, coffee break and exhibition.**

Oral session 4: Aerosol properties: pH & surfaces

Chairs, TBD

- 15:30 – 15:45 **Siegfried Schobesberger (UEF)** – *“Determining sub-micron aerosol pH from gas- and particle-phase composition measurements and thermodynamic modeling”*
- 15:45 – 16:00 **Linnéa Jönsson (LU)** – *“How can we control the structure and surface composition of metal oxide nanoparticles in-flight?”*
- 16:00 – 16:15 **Georg Trolle (AU)** – *“Modeling Local Aerosol Surface Environments: Clustering of Organic Acids, Water, and Ions”*
- 16:15 – 16:30 **Xiangrui Kong (GU)** – *“Water-Induced Catalysis on Atmospheric Aerosol Surfaces: Molecular Insights from APXPS Studies”*
- 17:30 – 21:00 Social conference dinner at:
Aarhus Street Food, Ny Banegårdsgade 46, 8000 Aarhus

Wednesday, January 22, 2025:

08:00 – 09:00 **Registration at the Department of Chemistry**

Oral session 5: Aerosol processes and impacts on ecosystems

Chairs, TBD

- 09:00 – 09:30 **Annele Virtanen (UEF)** – *“The Role of Biogenic Aerosol in the Atmosphere-Ecosystem Interactions”*
- 09:30 – 09:45 **August Thomasson (LU)** – *“Towards Better Black Carbon Emission Estimates in Europe: assimilating surface observations with a Bayesian inversion framework”*
- 09:45 – 10:00 **Haochi Che (UIO)** – *“Changes in Aerosol Hygroscopicity over the South-East Atlantic Ocean During Biomass Burning Season and the Factors Behind Them”*
- 10:00 – 10:15 **Jonas Enarsson (LU)** – *“Real-time measurement of reactive oxygen species emitted from indoor sources”*
- 10:15 – 10:45 **Coffee break and exhibition.**

Oral session 6: Bio-aerosols & health impacts

Chairs, *TBD*

- 10:45 – 11:00 **Corina Wieber (AU)** – “Aerosolization triggers the expression of the ice-nucleating gene in the plant pathogen *Pseudomonas syringae*”
- 11:00 – 11:15 **Marcus Liljenberg (LU)** – “Airborne DNA at a simulated crime scene”
- 11:15 – 11:30 **Christian Castenschild (AU)** – “Seasonal Dynamics of Arctic Marine and Atmospheric Ice-Nucleating Particles”
- 11:30 – 11:45 **Hugo Öhrneman (LU)** – “The Potential of Using Aerosol to Investigate Our Most Common Airway Diseases”
- 11:45 – 13:00 **Lunch**

Oral session 7: Aerosols in polar regions

Chairs, *TBD*

- 13:00 – 13:30 **Paul Zieger (SU)** – “Aerosol-Cloud Interactions in the Arctic”
- 13:30 – 13:45 **Tim Carlsen (UO)** – “Over the edge: Semi-Lagrangian cloud phase changes in Antarctic mixed-phase clouds across the marginal sea ice zone”
- 13:45 – 14:00 **Malte Schuchard (GE)** – “Airborne measurements of the vertical and horizontal variability of ultrafine aerosol particles in Svalbard during melting season 2024”
- 14:00 – 14:15 **Lu Zhang (AU)** – “Long term trend of aerosol chemical compositions at Villum Research Station”
- 14:15 – 14:30 **Awards, closing remarks and farewell.**