

Mr Nicolas Fauré

Date of birth: 24 November 1998
Research ID: ORCID 0000-0003-3200-2337
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Current Activity

Ph. D. Student in Chemistry and Physics of Atmospheric Aerosols September 2021-
University of Gothenburg, Gothenburg, Sweden
Supervisor: Dr. Erik S. Thomson
Co-supervisor: Dr. Xiangrui Kong

Membership of Scientific Societies

Nordic Society for Aerosol Research (NOSA) early career scientist board member 2022-

Education

Master 2 in Atmospheric Sciences (Excellent) 2020-2021
University of Lille, Lille, France

Master 1 in Climate Environment Application and Research (Excellent) 2019-2020
University of Paris Saclay, Orsay, France

Bachelor's degree in chemistry and Biology (Excellent) 2016-2019
University of Strasbourg, Strasbourg, France

Previous research activities

Master 2 Thesis in Atmospheric Chemistry January 2021-June 2021
University of Helsinki, Helsinki, Finland
Focus: Detection of Highly Oxygenated Molecules (HOM) from a-pinene and O₃ reaction.
Supervisor : Pr. Mikael Ehn

Master 1 Thesis in Atmospheric Chemistry March 2020-June 2020
University of Helsinki, Helsinki, Finland
Focus: Bibliographic work (due to Covid-19) on aerosols' aqueous chemistry.
Supervisor : Pr. Mikael Ehn

Presentations at conferences and seminars

March 2022 - **Nordic Society for Aerosol Research (NOSA) Symposium**
Oslo, Norway
Poster: How do salts' surfaces behave in the presence of water vapor?

December 2022 - **9th Atmospheric Pressure X-ray Photoelectron Spectroscopy Workshop**
Baden, Switzerland

Poster: How do salts' surfaces behave in the presence of water vapor?

October 2022 - **Gothenburg Air Quality and Climate Biennial**
Gothenburg, Sweden
Poster: How do salts' surfaces behave in the presence of water vapor?

June 2022 - **Southern Ocean Observing System Workshop**
Gothenburg, Sweden
Oral: Investigation of the Ice Nucleation ability of Marine Aerosols.

May 2022 - **Molecular Level Understanding of Atmospheric Aerosol**
Los Angeles, USA
Poster: What can salt and water vapor interactions tell us about Martian water?

May 2022 - **The Cryosphere and Atmospheric Chemistry Workshop**
Online
Poster: What can salt and water vapor interactions tell us about Martian water?

Participation in international courses and schools

November 2022 - **Arctic in a Changing Climate**
University of Gothenburg, Gothenburg, Sweden

Beamtime participations

April 2023 - **Atmospheric Pressure X-ray Photoelectron Spectroscopy (APXPS)**
MAX IV, Lund, Sweden

March 2023 - **Scanning Transmission X-ray Microscopy (STXM)**
UVSOR, Okazaki, Japan

March 2023 - **X-ray Absorption Spectroscopy (XAS) in liquid cell**
UVSOR, Okazaki, Japan

February 2023 - **Atmospheric Pressure X-ray Photoelectron Spectroscopy (APXPS)**
MAX IV, Lund, Sweden

December 2022 - **Atmospheric Pressure X-ray Photoelectron Spectroscopy (APXPS)**
Swiss Light Source, Paul Scherrer Institute, Switzerland

May 2022 - **Atmospheric Pressure X-ray Photoelectron Spectroscopy (APXPS)**
Swiss Light Source, Paul Scherrer Institute, Switzerland

September 2021 - **Atmospheric Pressure X-ray Photoelectron Spectroscopy (APXPS)**
Swiss Light Source, Paul Scherrer Institute, Switzerland

List of Publications

N. Fauré, J. Chen, L. Artiglia, M. Ammann., T. Bartels-Rausch, J. Li, W. Liu, S. Wang, Z. Kanji, J. B. C. Pettersson, I. Gladich, E. Thomson and X. Kong (2023), Unexpected Ion-selective Surface

Enhancement on Martian Salts Analogues upon Surface Solvation, ACS Earth Space Chem.
<https://doi.org/10.1021/acsearthspacechem.2c00204>.

E. Häkkinen, J. Zhao, F. Graeffe, **N. Fauré**, J. Krechmer, D. Worsnop, H. Timonen, M. Ehn and J. Kangasluoma (2022), Online measurement of highly oxygenated compounds from organic aerosol, Atmos. Meas. Tech. <https://doi.org/10.5194/amt-16-1705-2023>

N. Fauré et al. (2023), Interfacial Sodium Chloride Formation onto a Sulfate-Dominant Natural Salt upon Water Condensation, ACS Earth Space Chem. [manuscript in preparation]

X. Kong, I. Gladich, **N. Fauré**, E. Thomson, J. Chen, L. Artiglia, M. Ammann, T. Bartels-Rausch, Z. Kanji, and J. B. C. Pettersson (2023), Chemically Active Environments on Water-Adsorbed Surface of Sodium Chloride [manuscript submitted to J. Phys. Chem. Lett.]

Grants funded

Stiftelsen Ymer-80 – 20 000 SEK	2023
Travel Grant 9th APXPS Workshop, Switzerland – 500 CHF	2022
Adlerbertska Stipendier, Sweden – 20 000 SEK	2022
University of Lille Mobility Grant, France – 3000 Euro	2021
University Paris Saclay Excellence Mobility Grant, France – 4000 Euro	2020

Teaching Assistant

KEM 720: Aerosol – Master's degree – Gothenburg University
KEM 040: Physical Chemistry – Bachelor's degree – Gothenburg University
KEM 011: General Chemistry – Bachelor's degree – Gothenburg University
High School lectures, Gothenburg