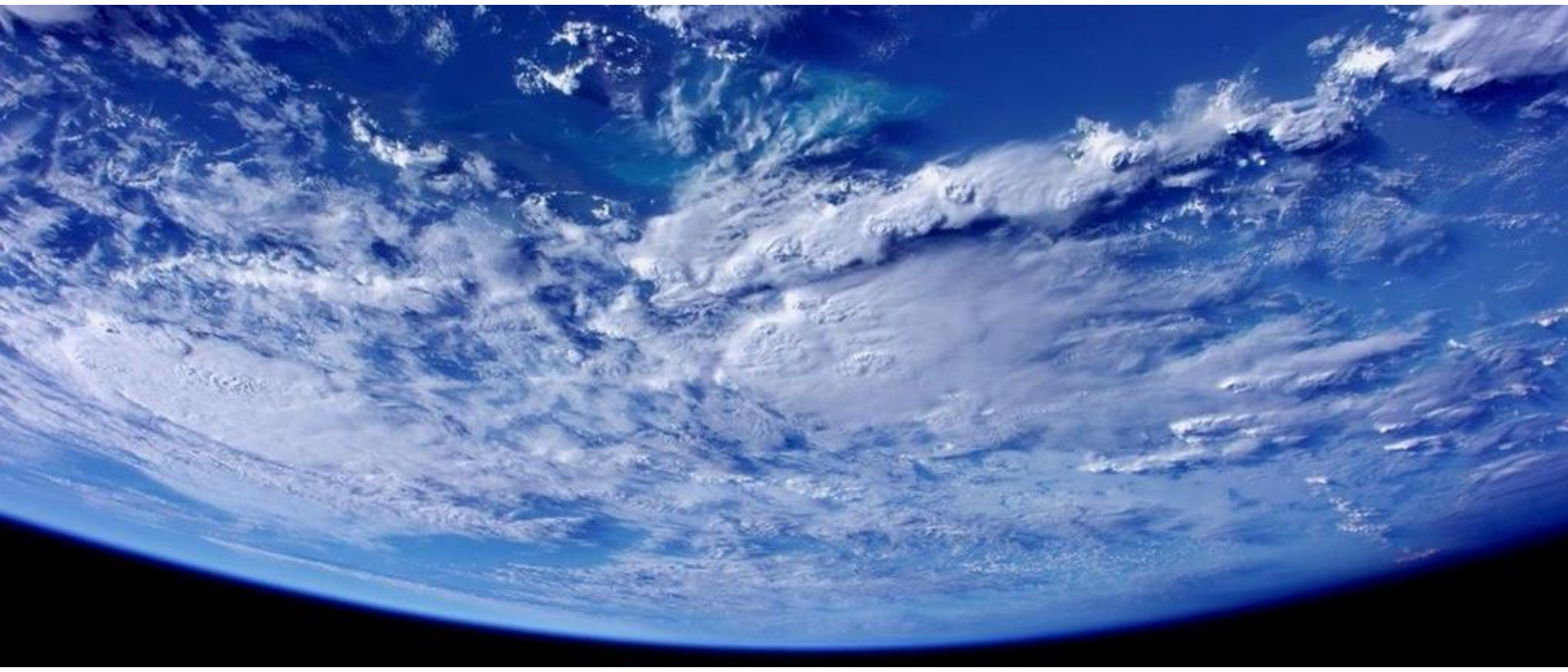

NOBEL SYMPOSIA 206

From Molecules to Climate
Understanding the Chemistry of Earth's Atmosphere

June 29 – July 2nd, 2026

Program

NOBEL SYMPOSIA 206: *From Molecules to Climate: A Fundamental Understanding of Chemistry in Earth's Atmosphere* was funded by The Royal Swedish Academy of Sciences and organized by KTH. The Nobel Symposium was made possible with additional support from the European Research Council (ERC). The NOBEL SYMPOSIA mark is owned by the Nobel Foundation.

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About NOBEL SYMPOSIA

The Nobel Foundation's symposium activities were initiated in 1965. Over the years they have achieved a high international standing. The symposia are devoted to areas of science where breakthroughs are occurring or deal with topics of primary cultural or social significance. (https://www.nobelprize.org/about/nobel-symposia/)

The NOBEL SYMPOSIA present an opportunity for Swedish researchers to organise international conferences at the highest scientific level, bringing them in direct contact with the international research frontier. Since the start in 1965, more than 190 NOBEL SYMPOSIA have been held. (https://www.kva.se/en/research-funding/nobel-symposia/)

Monday, June 29th

8h45 – 9h15: Barbara Nozière: **Welcoming address**

9h15 – 10h15: A. R. Ravishankara, **Introductory lecture**

10h15 – 10h40: **Coffee break**

Convener: Barbara Noziere

10h40 – 11h10: Steve Brown, *Tropospheric odd oxygen – evolving precursor emissions and impacts on chemistry*

11h10 – 11h40: Dwayne Heard, *Closing the budget of the hydroxyl (OH) radical, custodian of the atmosphere's oxidative capacity*

11h40 – 12h10: Paul Wennberg, *On the fate and atmospheric impact of organic peroxy radicals (RO_2)*

12h10 – 13h40: **Lunch**

Convener: Dwayne Heard

13h40 – 14h10: Marsha Lester, *Criegee intermediates in isoprene ozonolysis and their atmospheric impact*

14h10 – 14h25: Mattias Hallquist, *Night-time chemistry and the nocturnal secondary organic aerosol*

14h25 – 14h40: John Wenger, *Atmospheric oxidation of aromatic hydrocarbons*

14h40 – 14h55: Balla Rajakumar, *Atmospheric reaction kinetics: Experimental and computational methods*

14h55 – 15h20: **Coffee break**

15h20 – 16h20: **Panel discussion I**

Convener: Örjan Gustafsson

16h20 – 16h50: Neil Donahue, *The chemistry and physics that couple organic oxidation to particle formation and growth*

16h50 – 17h20: Marianne Glasius, *Tracing molecular processes and sources of organic aerosols*

17h20 – 17h35: Lubna Dada, *Organic new particle formation*

19h00: **Dinner**

Tuesday, June 30

Convener: Marianne Glasius

8h30 – 9h00: Vicki Grassian, *Surface Chemistry of Atmospheric Aerosols*

9h00 – 9h30: Jon Abbatt, *Organic Multiphase Atmospheric Chemistry: Old and New Stories*

9h30 – 10h00: Christian George, *Unveiling Spontaneous OH Production in Atmospheric Aerosols: Interfacial Chemistry Across Water and Organic-Rich Microdroplets*

10h00 – 10h30: Mikael Ehn, *Chasing the fast chemistry that turns volatile emissions into effectively non-volatile and highly oxygenated molecules (HOM)*

10h30 – 10h55: **Coffee break**

10h55 – 11h10: Federico Bianchi, *Chasing HOMs around the world: Varying drivers of particle formation in different environments*

Convener: Yinon Rudich

11h10 – 11h40: Merete Bilde, *Linking Aerosols, Atmospheric Chemistry and Cloud Formation*

11h40 – 12h10: Barbara Ervens, *Aqueous Chemistry in the Atmospheric Multiphase System: Cloud Droplets and Particles*

12h10 – 13h40: **Lunch**

13h40 – 14h10: **Group picture**

14h10 – 14h40: Hartmut Herrmann, *Tropospheric multiphase chemistry in laboratory, modeling and field studies*

14h40 – 14h55: Gordon McFiggans, *The role of condensing vapours in cloud droplet formation and its impact*

14h55 – 15h20: **Coffee break**

15h20 – 16h20: **Panel discussion II**

16h20 – 16h50: Thomas Koop, *Fundamental Principles of Atmospheric Phase Transitions*

Convener: Neil Donahue

16h50 – 17h20: Guy Brasseur, *Atmospheric chemistry in an Earth system perspective*

17h20 – 17h50: Lucy Carpenter, *The chemical dialogue between the ocean and the atmosphere and its regulation of climate*

19h00: **Dinner**

Wednesday, July 1st

8h15 – 12h10: **Excursion**

8h15 Departure from Hotel Skepparholmen onboard M/S Rödlöga

9h00 Arrival to Stockholm old town

9h00 – 11h20: Free time in old town

11h20 Return trip on M/S Rödlöga to Hotel Skepparholmen

12h10 – 13h40: **Lunch**

Convener: Neil Donahue

13h55 – 14h25: Colette Heald, *Atmospheric Chemistry and the Role of the Biosphere*

14h25 – 14h55: Athanasios Nenes, *atmospheric acidity and its role in atmospheric processes, ecosystems, health and bioaerosols*

14h55 – 15h20: **Coffee break**

15h20 – 15h50: John Plane, *New developments in the chemistry of the middle and upper atmosphere*

15h50 – 16h05: Matthew Johnson, *Reactive Chlorine in the Atmosphere: From Sea Salt to Climate*

16h05 – 16h35: Spyros Pandis, *Atmospheric evolution of biomass burning organic aerosol*

Convener: Steve Brown

16h35 – 17h05: Ron Cohen, *Temperature and organic nitrates: the future of air quality*

17h05 – 17h35: Qi Chen, *China's Air Quality Shifts: Successes, Challenges, and Scientific Foundations*

17h35 – 17h50: Örjan Gustafsson, *Isotopic constraints on the atmospheric chemistry of Black Carbon, Brown Carbon, CO and CH_4 over South Asia*

19h00: **Conference dinner at Villa Källhagen**
Departure from Hotel Skepparholmen at 18h00. Return at 22h00.

Thursday, July 2nd

Convener: Steve Brown

8h30 – 9h00: Delphine Farmer, *Inside Out: New insights into how indoor chemistry impacts the air we breathe*

9h00 – 9h30: Tong Zu, *The Health Effects of Aerosols in a Changing World: Size, Compositions, and Demographic*

9h30 – 10h30: **Panel discussion III**

10h30 – 10h55: **Coffee break**

Convener: Mattias Hallquist

10h55 – 11h25: Yinon Rudich, *Harnessing Deep Learning for Atmospheric Chemistry Research*

11h25 – 11h40: Annemarie Carlton, *From Unknown Peaks to Mechanisms: Reaction Prediction Meets Atmospheric Chemistry*

11h40 – 12h10: Joost De Gouw, *Advances in Mass Spectrometric Measurements of Trace Compounds in the Atmosphere*

12h10 – 13h40: **Lunch**

13h40 – 13h55: Joel Thornton, *A new era for an old technique: ultra-fast gas chromatography for 1-Hz isomer-resolved online measurements of VOC*

13h55 – 14h25: Jonathan Reid, *Studying the Atmospheric Transformations of Aerosols One Particle at a Time*

14h25 – 14h55: Alex Laskin, *Contemporary Chemical Imaging and Molecular Characterization of Atmospheric Aerosols*

14h55 – 15h20: **Coffee break**

15h20 – 15h35: Jianzhen Yu, *Atmospheric Aerosol Speciation: Composition-Based, Property-Oriented, and Molecule-Resolved Approaches*

15h50 – 16h50: **Panel discussion IV**

16h50 – 17h35: **Concluding remarks** and end of the Symposium

Participants

Prof. Jon Abbatt, University of Toronto, Canada
Prof. Raja Kumar Balla, Indian Institute of Technology Madras, India
Dr. Linda Bell, FORMAS, Sweden
Prof. Federico Bianchi, University of Helsinki, Finland
Prof. Merete Bilde, Aarhus University, Denmark
Dr. Guy Brasseur, Max Planck Institute for Meteorology, Germany
Dr. Steve Brown, University of Colorado, USA
Prof. Annmarie Carlton, University of California Irvine, USA
Prof. Lucy Carpenter, University of York, UK
Prof. Qi Chen, Peking University, China
Prof. Ron Cohen, University of California Berkeley, USA
Dr. Lubna Dada, Paul Scherrer Institute, Switzerland
Prof. Joost de Gouw, University of Colorado Boulder, USA
Prof. Neil Donahue, University College Cork, Ireland
Prof. Christophe Duwig, Royal Institute of Technology (KTH), Sweden
Prof. Mikael Ehn, University of Helsinki, Finland
Dr. Barbara Ervens, University of Clermont Auvergne, France
Prof. Delphine Farmer, Colorado State University, USA
Prof. Marianne Glasius, Aarhus University, Denmark
Dr. Christian George, CNRS – IRCELYON, France
Prof. Vicki Grassian, University of California San Diego, USA
Prof. Örjan Gustafsson, Stockholm University, Sweden
Prof. Mattias Hallquist, University of Gothenburg, Sweden
Prof. Colette Heald, ETH Zurich, Switzerland
Prof. Dwayne Heard, University of Leeds, UK
Prof. Hartmut Hermann, Leibniz-Institute for Tropospheric Research, Germany
Prof. Thorsten Hoffmann, Johannes Gutenberg-Universität, Germany
Prof. Matthew Johnson, University of Copenhagen, Denmark
Prof. Henrik Kjaergaard, University of Copenhagen, Denmark
Prof. Thomas Koop, Bielefeld University, Germany
Prof. Alex Laskin, Purdue University, USA
Prof. Marsha Lester, University of Pennsylvania, USA
Prof. Gordon McFiggans, University of Manchester, UK
Prof. Claudia Mohr, Paul Scherrer Institute, Switzerland
Dr. Juliane Mössinger, Springer Nature Limited, UK
Prof. Athanasios Nenes, EPFL, Switzerland
Prof. Barbara Nozière Wegmann, Royal Institute of Technology (KTH), Sweden
Prof. Spyros Pandis, University of Patras, Greece
Prof. John Plane, University of Leeds, UK
Prof. A. K. Ravishankara, Colorado State University, USA
Prof. Jonathan Reid, University of Bristol, UK
Prof. Ilona Riipinen, Stockholm University, Sweden
Prof. Matti Riisanen, Tampere University & University of Helsinki, Finland
Prof. Yinon Rudich, Weizmann Institute, Israel
Prof. Alfonso Saiz Lopez, Instituto de Química Física Blas Cabrera, Spain
Dr. H. Jesse Smith, American Association for the Advancement of Science, USA
Prof. Rich Thomas, Stockholm University, Sweden
Prof. Erik Thomson, University of Gothenburg, Sweden
Prof. Joel Thornton, University of Washington, USA
Prof. John Wenger, University College Cork, Ireland
Prof. Paul Wennberg, California Institute of Technology, USA
Prof. Jianzhen Yu, Hong Kong University of Science & Technology, China
Prof. Tong Zhu, Peking University, China