



American Geophysical Union Fall Meeting 2023

Tuesday, December 12th

Aerodyne Presentations:

16:15 [Linking subsurface biogeochemical nitrogen cycling to N₂O surface fluxes](#) presented by Elizabeth Lunny in eLightning Theater III, Hall D – South.

B24E eLightning session (The Bioatmospheric N Cycle: N Emissions, Transformations, and Deposition and Terrestrial and Aquatic Ecosystem Impacts III) from 16:00-17:30

16:40 [Ambient ethylene oxide measurements and emissions from commercial sterilization facilities](#)

Presented by Tara Yacovitch in Room 3004 - West

A24A Session (Advances in Methods and Technologies for Emission Monitoring and Exposure Assessment to Hazardous Air Pollutants II Oral) from 16:00-17:30

17:00 [Industrial Point Source Plumes and Neighborhood Impacts Measured with the Aerodyne Mobile Laboratory during the Dallas Field Study](#) Presented by Edward Fortner in Room 3004 – West

A24A Session (Advances in Methods and Technologies for Emission Monitoring and Exposure Assessment to Hazardous Air Pollutants II Oral) from 16:00-17:30

Presentations featuring Aerodyne:

16:10 [Leveraging Spatial Measurements of VOCs to Quantify Community Exposures and Risk: Results from the Hazardous Air Pollution and Monitoring Assessment Project \(HAP-MAP\)](#) By Peter DeCarlo in Room 3004 – West.

A24A Session (Advances in Methods and Technologies for Emission Monitoring and Exposure Assessment to Hazardous Air Pollutants II Oral) from 16:00-17:30

16:30 [Ethylene Oxide at the Industrial Fenceline in Southeastern Louisiana: Spatially-Resolved Concentrations and Plume Measurements from Fast Time-Resolution Mobile Monitoring During HAP-MAP](#) By Ellis Robinson in Room 3004 – West.

A24A Session (Advances in Methods and Technologies for Emission Monitoring and Exposure Assessment to Hazardous Air Pollutants II Oral) from 16:00-17:30



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Wednesday, December 13th

Aerodyne Presentations:

10:50 [Non-targeted Volatile Organic Carbon Detection and Quantification by in-situ Gas Chromatography Coupled with a Novel Mass Spectrometric Method Which Offers Simultaneous Electron Ionization and Chemical Ionization Detection](#) Presented by Megan Claflin in Room 3002 – West

A32A Session (Advances in Instrumentation and Measurement Technology in the Atmospheric Sciences I Oral) from 10:20-11:50

11:10 [Unraveling the Complexity of Atmospheric Organics with Fast, Bipolar, Multi-reagent Chemical Ionization Mass Spectrometry](#) Presented by Manjula Canagaratna in Room 3002 – West

A32A Session (Advances in Instrumentation and Measurement Technology in the Atmospheric Sciences I Oral) from 10:20-11:50

Aerodyne Posters:

08:30-12:50 Session in Poster Hall A-C – South

Poster # A31D-2422 [Continued role of oil and sulfur in ground-based aircraft engine particle emissions during the 2022 Boeing ecoDemonstrator measurements](#) By Benjamin Nault

Poster Group A31D (Aircraft Engine Emissions Impacts on Air Quality, Cloud Formation, and Climate II Poster)

14:10-18:30 Session in Poster Hall A-C – South

Poster # A33I-3649 [Recent mobile GC-TOFMS measurements of VOCs in North America](#) by Brian Lerner

Poster Group A33I (Advances in Methods and Technologies for Emission Monitoring and Exposure Assessment to Hazardous Air Pollutants IV Poster)

Presentations/Posters featuring Aerodyne:

14:40 [Methanogen Community Composition Drives Shifts in Methane Isotopes Across High-Latitude Peatlands](#) By. Carmody McCalley in Room 3007 – West.

B33A Session (Building a More Complete Representation of Methane Dynamics Across Earth's Ecosystems II Oral) from 14:10-15:40



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Thursday, December 14th

Aerodyne Presentations:

08:48 [Two-Channel, Fast Time-Response CAPS NO_x Monitor](#) by Tim Onasch & Zachary Payne in eLightning Theater I, Hall D – South
A41S eLightning Session (Advances in Instrumentation and Measurement Technology in the Atmospheric Sciences IV eLightning) from 8:30-10:00

Aerodyne Posters:

08:30-12:50 Session in Poster Hall A-C – South
Poster Group A41I (Advances in Instrumentation and Measurement Technology in the Atmospheric Sciences V Poster)

Poster # A41I-2743 [Simultaneous multi-reagent ion detection of atmospheric traces gases using chemical ionization mass spectrometry: results from recent measurements in an urban environment](#) by Harald Stark

Poster #A41I-2750 [Quantification of Controlled Hydrogen Releases Using a Novel Instrument on a Mobile Platform](#) by Conner Daube

Poster A41I-2740 [Measuring subsurface hydrogen sources and sinks with high spatiotemporal resolution](#) by Joseph (Rob) Roscioli

Presentations/Posters featuring Aerodyne:

8:30-12:50 Session in Poster Hall A-C – South

Poster B41F-2528 [VOC-plant-microbe interactions in the subsurface: Observations on the transport and fate of volatile organic compounds in soil](#) By Gemma Purser
Poster Group B41F (Secrets of the Subterranean: Deciphering Plant-Microbe Interactions in the Rhizosphere from Molecules to Ecosystem Functioning I Poster)

10:20 [Observations at the NYC-METS Ground Site in New York City during the Summer 2023 AGES+ Measurement Intensive](#) By Drew Gentner in Room 3001 – West.
A42B Session (Air Quality Trends and Challenges in Urban Area II Oral) from 10:20-11:50

10:40 [Volatile Organic Compound Emissions and Chlorine Oxidation in an Arctic Oil Field](#) By Andrew Jensen in Room 3000 – West.
A42G Session (Seasonal Arctic and Wintertime Atmospheric Composition and Chemistry I Oral) from 10:20-11:50

15:14 [Ammonium controls synthesis of organic nitrogen while nitrate drives dissimilatory nitrous oxide production in sorghum rhizospheres](#) By Holly Andrews in Room 3007 – West.
B43B Session (Secrets of the Subterranean: Deciphering Plant-Microbe Interactions in the Rhizosphere from Molecules to Ecosystem Functioning II Oral) from 14:10-15:40

15:25 [Root volatile organic compound emission variations with plant species, rhizosphere, and drought stress](#) By Qunli Shen in Room 3007 – West.
B43B Session (Secrets of the Subterranean: Deciphering Plant-Microbe Interactions in the Rhizosphere from Molecules to Ecosystem Functioning II Oral) from 14:10-15:40



American Geophysical Union Fall Meeting 2023

Friday, December 15th

Aerodyne Posters:

08:30-12:50 Session in Poster Hall A-C – South

Poster # B51E-1820 [Novel probes for real-time monitoring of dissolved nitrous oxide, methane and other gases and their isotopes in aquatic ecosystems](#) by Joanne Shorter

Coastal Wetland Carbon and Nitrogen Cycles: Recent Advances in Measurements, Modeling, and Syntheses I Poster

Presentations/Posters featuring Aerodyne:

08:30-12:50 Session in Poster Hall A-C – South

Poster # A51Y-2306 [Observations of Reactive Bromine Chemistry in an Arctic Oil Field](#) by Graham Frazier

Seasonal Arctic and Wintertime Atmospheric Composition and Chemistry II Poster