

Telluride Science Research Center Workshop

Organic Particles in the Atmosphere: Formation, Properties, Processing and Impacts

July 30-August 3, 2012

Meeting Organizers

Jesse Kroll (jhkroll@mit.edu, cell: 781-413-4558)

Colette Heald (heald@mit.edu, cell: 617-331-6768)

TSRC Organizers

Nana Naisbitt (nana@telluridescience.org, cell: 970-708-0004)

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Schedule

All Meetings and Breakfasts on M/W/F held at the Telluride Intermediate School (725 W. Colorado Ave)

MONDAY, JULY 30

7:30-8:15: Breakfast @TSRC (participants only)

8:15-8:30: Welcome

Discussion Leader: Neil Donahue

8:30-9:30: Jose Jimenez & Brett Palm (University of Colorado)
"Insights about organic aerosol sources from field and lab measurements and measurement/model comparisons"

9:30-10:30: Prakash Bhawe & Havala Pye (EPA)
"Modeling the atmospheric concentration of organic PM across the U.S."

10:30-11:00: BREAK

11:00-12:00: Joel Thornton (University of Washington)
"Organic acids in gas and particle phases: insights into photochemical and biomass burning sources from chamber and field measurements"

12:00-13:00: Kelley Barsanti & Will Porter (Portland State University)
"Mechanistic Models, GCxGC Data, and the Carbon Number-Polarity Grid"

Discussion Leader: Jon Abbatt

19:00-20:00: Jesse Kroll (MIT)
"Chambers, flow tubes, and bottles: Simulating aging of organics in the laboratory"

20:00-21:00: Allen Robinson (Carnegie Mellon University)
"Synthesizing five years of chamber experiments with dilute emissions."

TUESDAY, JULY 31

Discussion Leader: Barb Turpin

- 13:00-14:00: Colette Heald (MIT)
"Tryin' To Throw My Arms Around the World: A perspective on OA constraints"
- 14:00-15:00: Hugh Coe & James Allen (University of Manchester)
"Field observations contrasting OM influenced by biomass burning, biogenic, and anthropogenic sources"
- 15:00-15:30: BREAK
- 15:30-16:30: Lynn Russell & Janin Guzman Morales (University of California, San Diego)
"Comparing Functional Group Ratios in Ambient and Chamber SOA"
- 16:30-17:30: Yinon Rudich (Weizmann Institute)
"Organic aerosol processing through ice clouds: atmospheric freeze drying"
- 18:00-19:15: TOWN TALK, Kim Prather & Neil Donahue (Palm Theatre)
- 20:00-21:30: Informal Group Dinner @ La Marmotte (150 San Juan Avenue)

WEDNESDAY, AUGUST 1

7:30-8:30: Breakfast @ TSRC (participants only)

Discussion Leader: Joel Thornton

- 8:30-9:30: Paul Ziemann (University of California, Riverside)
"Comprehensive SOA Chamber Studies"
- 9:30-10:30: Kevin Wilson (Lawrence Berkeley National Laboratory)
"Understanding How Statistical Distributions of Reaction Products Control the Photochemical Evolution of Organic Aerosol"
- 10:30-11:00: BREAK
- 11:00-12:00: Jason Surratt (University of North Carolina)
"Formation of Secondary Organic Aerosol Formation from Isoprene Oxidation: Role of Isoprene-Derived Epoxides"
- 12:00-13:00: Astrid Kiendler-Scharr (Forschungszentrum Jülich)
"Biogenic SOA: an overview of laboratory and simulation chamber studies"

Special Joint Evening Session with Gas-Phase Atmospheric Chemistry Meeting (Discussion Leader: Jesse Kroll)

19:00-20:00: Neil Donahue (Carnegie Mellon University)
"If a particle evaporates in a vacuum, can you hear it scream?"

20:00-21:00: Steve Brown (NOAA)
"If NO_x oxidizes in the dark, can you read its obituary?"

THURSDAY, AUGUST 2

Discussion Leader: Hugh Coe

13:00-14:00: Barbara Turpin & Natasha Hodas (Rutgers University)
"Overcoming challenges accounting for organics in ambient PM exposure estimates"
"Liquid water and SOA: Organic photochemistry on the big blue marble"

14:00-15:00: Jonathan Abbatt (University of Toronto)
"Oxidation in the aqueous phase, in wet SOA, and at the ocean-atmosphere interface"

15:00-15:30: BREAK

15:30-16:30: Dominick Spracklen (University of Leeds)
"The climate impacts of organic aerosol"

16:30-17:30: Kim Prather (University of California, San Diego)
"How do seawater total organic carbon levels impact the hygroscopicity of sea spray aerosol?"

18:00-21:00 Telluride Picnic

FRIDAY, AUGUST 3

7:30-8:30: Breakfast @ TSRC (participants only)

Discussion Leader: Colette Heald

8:30-9:30: Doug Worsnop & Manjula Canagaratna (Aerodyne Research, Inc.)
No Title Provided

9:30-10:30: Spyros Pandis (University of Patras, Carnegie Mellon University)
"Constraining OA Chemical Transport Models with Laboratory and Field Observations"

10:30-11:30: Discussion, Meeting Re-cap, Future Planning