

Southeast Atmosphere Study (SAS) Data Workshop

NCAR Center Green Building 1, 3080 Center Green Drive, Boulder, Colorado

March 31 - April 2, 2014

Meeting will be remotely available through ReadyTalk:

Voice + 866-740-1260 (toll free) access code 4978380

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Oral Presenters:

- Please leave 5 min for discussion
- Slides will be run from a Mac loaded with MS Office and Apple software
- Please email your presentations to Vidal Salazar (vidal@ucar.edu) or upload prior to the session

Poster Presenters:

- There will be poster sessions on Monday and Tuesday, each with a different set of posters
- Please hang your poster in the morning of the day you are presenting
- Poster boards are numbered, and are 46" wide and 60" tall

Monday, March 31

8:00-8:30	Coffee and breakfast snacks	CG1 Lobby
8:30-10:30	Oral session 1: Platform Overviews	CG1 Auditorium
8:30-8:50	<i>Joost de Gouw</i> , NOAA & CIRES, Welcome and overview of the NOAA Southeast Nexus study	
8:50-9:10	<i>Dan Jaffe</i> , Univ. Washington Bothell, Overview of NOMADSS	
9:10-9:30	<i>Ann Marie Carlton</i> , Rutgers Univ., Overview of the Southern Oxidants and Aerosol Study	
9:30-9:50	<i>Alex Guenther</i> , PNNL, Overview of biogenic emissions measurements	
9:50-10:10	<i>Jason Surratt</i> , UNC Chapel Hill, Overview of Look Rock field site during SOAS	
10:10-10:30	<i>Paul Wennberg</i> , Caltech, An overview of the SOAS chamber study: Focused Isoprene eXperiment @ California Institute of Technology - FIXCIT.	
10:30-11:00	Coffee break	CG1 Lobby
11:00-12:30	Oral session 2: Oxidants	CG1 Auditorium
11:00-11:18	<i>Bill Brune</i> , Penn State University, HO _x measurements during SOAS	
11:18-11:36	<i>Saewung Kim</i> , UC Irvine, What CIMS can do in constraining oxidation capacity?	
11:36-11:54	<i>Lee Mauldin</i> , CU Boulder, Oxidation during NOMADSS	
11:54-12:12	<i>Xianliang Zhou</i> , SUNY Albany, Tropospheric HONO Distribution	
12:12-12:30	<i>Andy Neuman</i> , NOAA & CIRES, HONO Sources to the troposphere during SENEX	
12:30-13:30	Lunch. Three groups will meet in separate rooms: NOMADSS participants have lunch in Room 3131 for a business meeting	

- Modeling groups meet in Room 2503 for a discussion led by Ann Marie Carlton
 Mass spectrometrists meet in Room 2126 for a discussion led by Allen Goldstein
- 13:30-15:00 Oral session 3: Emissions CG1 Auditorium
- 13:30-13:48 *Tran Nguyen*, Caltech, Fluxes of biogenic oxidized VOCs
- 13:48-14:06 *Shanhu Lee*, Kent State Univ., Sulfuric acid, ammonia, amines and new particle formation in the Alabama forest
- 14:06-14:24 *Patrick Veres*, NOAA & CIRES, APAN formation in biomass burning plumes during SENEX
- 14:24-14:42 *Jeff Peischl*, NOAA & CIRES, Quantification of methane emissions from natural gas extraction from the Haynesville, Fayetteville, and northeastern Marcellus shale regions
- 14:42-15:00 *Jessica Gilman*, NOAA & CIRES, Characterizing emissions of volatile organic compounds (VOCs) in the Haynesville, Fayetteville, and Marcellus shale regions via aircraft observations during SENEX 2013
- 15:00-15:30 Afternoon coffee CG1 Lobby
- 15:30-17:00 Oral session 4: Ozone chemistry + Mercury CG1 Auditorium
- 15:30-15:48 *Ron Cohen*, UC Berkeley, The changing NO_y budget in the Southeast US
- 15:48-16:06 *Charles Blanchard*, Envair, Historical context of the SOAS 2013 Centreville field study: impacts of emissions on PM_{2.5} EC and OC
- 16:06-16:24 *Jesse Ambrose*, Univ. Washington Bothell, Quantifying mercury emissions from large point sources in the Southeastern U.S. during NOMADSS
- 16:24-16:42 *Lynne Gratz*, Univ. Washington Bothell, Observations of enhanced reactive Hg in the free troposphere and Hg concentrations in urban plumes
- 16:42-17:00 *Viral Shah*, Univ. Washington, Investigating the chemistry of reactive mercury using the GEOS-Chem model
- 17:00-19:00 Poster session 1 and Reception CG1 Auditorium

Tuesday, April 1

- 8:00-8:30 Coffee and breakfast snacks CG1 Lobby
- 8:30-10:30 Oral session 5: Gas-Phase/Aerosol Chemistry CG1 Auditorium
- 8:30-8:50 *Karsten Baumann*, ARA, A historical perspective on AQ at CTR in June-July
- 8:50-9:10 *Pawel Misztal*, UC Berkeley, Gas-phase photooxidation chemistry of terpenes in the SE US: field and chamber analysis (SRI-ToF-MS)
- 9:10-9:30 *Alexander Teng*, Caltech, Understanding the budget of alkyl nitrates at SOAS: SOAS-FIX chamber and field observations
- 9:30-9:50 *Jordan Kretchmer*, CU Boulder, Detection of highly oxidized gas phase organics formed from biogenic precursors
- 9:50-10:10 *Stephanie Shaw*, EPRI, Outstanding questions on organic aerosols
- 10:10-10:30 *John Offenber*, EPA, SOA tracers and 14C in Centreville
- 10:30-11:00 Coffee break CG1 Lobby
- 11:00-12:30 Oral session 6: Organic Aerosol CG1 Auditorium
- 11:00-11:18 *Ann Middlebrook*, NOAA, Aerosol chemical composition and formation

	processes from SENEX	
11:18-11:36	<i>Lu Xu</i> , Georgia Tech, Chemical characterization of organic aerosols during SOAS using high resolution aerosol mass spectrometry	
11:36-11:54	<i>Frank Keutsch</i> , UW Madison, Chemistry of ISOPOOH	
11:54-12:12	<i>Sri Hapsari Budisulistiorini</i> , UNC Chapel Hill, Real-time characterization of isoprene-derived soA formation at the Look Rock site during SOAS	
12:12-12:30	<i>Elizabeth A. Stone</i> , Univ. Iowa, Advances in quantitation of atmospheric organosulfates	
12:30-13:30	Lunch	CG1 Lobby
13:30-15:30	Oral session 7: Nighttime Chemistry	CG1 Auditorium
13:30-13:50	<i>Raul Martinez</i> , Washington Univ. St. Louis, Characterization of organic aerosol measured by the volatility and polarity separator (VAPS)	
13:50-14:10	<i>Steve Brown</i> , NOAA, Budgets and modeling of nighttime biogenic hydrocarbon oxidation from P-3 night flights during SENEX.	
14:10-14:30	<i>Ben Lee</i> , Univ. Washington, Insights into NO ₃ -driven alkyl nitrate formation from SENEX	
14:30-14:50	<i>Jingqiu Mao</i> , NOAA GFDL, How does nighttime oxidation of BVOCs impact daytime ozone?	
14:50-15:10	<i>Fulizi Xiong</i> , Purdue Univ., Nighttime isoprene nitrates	
15:10-15:30	<i>Julie Fry</i> , Reed College, NO _y fate in the southeastern U.S.: NO ₃ -initiated organonitrate production vs. dust uptake	
15:30-16:00	Afternoon coffee	CG1 Lobby
16:00-18:00	Poster session 2	CG1 Auditorium
19:00	Social hour, FATE Brewing Company, 1600 38 th Street, Boulder, Colorado	

Wednesday, April 2

8:00-8:30	Coffee and breakfast snacks	CG1 Lobby
8:30-10:30	Oral session 8: Various + Aerosol Properties	CG1 Auditorium
8:30-8:50	<i>Wayne Angevine</i> , NOAA & CIRES, Transport and meteorological modeling products and services for SAS	
8:50-9:10	<i>Charles Brock</i> , NOAA, Aerosol Particles in power plant plumes measured at night	
9:10-9:30	<i>Milos Markovic</i> , NOAA & CIRES, Aging of BC in power plant plumes during SENEX 2013	
9:30-9:50	<i>Alexis Attwood</i> , NOAA & CIRES, Changes in visibility and local radiative forcing in the Southeast U.S. linked to decreased aerosol sulfate mass	
9:50-10:10	<i>Andrey Khlystov</i> , DRI, Semi-volatile Aerosol and Its Effect on Aerosol Optical Properties During SOAS	
10:10-10:30	<i>Rebecca Washenfelder</i> , NOAA & CIRES, Aerosol extinction in the ultraviolet spectral region during SOAS	
10:30-11:00	Coffee break	CG1 Lobby
11:00-12:00	Wrap-up: future plans	CG1 Auditorium

Poster Session 1

Poster boards are numbered, and are 46" wide and 60" tall

1. James Hunter, MIT, Volatility-resolved organic loading and oxidation state during BEACHON-RoMBAS
2. Carsten Warneke, NOAA & CIRES, Measurements of Biogenic and Anthropogenic Ozone and Aerosol Precursors during the SENEX (southeast
3. Christopher Boyd, Georgia Institute of Technology, SOA formation from nitrate radical oxidation of β -pinene: Effect of humidity, light, and dilution
4. Mike Lawler, NCAR/Univ. of Eastern Finland, Nanoparticle Composition by TDCIMS at SEARCH site
5. V. Faye McNeill, Columbia University, Modeling Aqueous SOA formation in the SE USA using GAMMA and simpleGAMMA
6. Aki Pajunoja, University of Eastern Finland, The physical phase and phase changes of SOA particles
7. Barbara Turpin, Rutgers University, Aqueous oxidation of ambient water soluble organics
8. Gabriel Isaacman, UC Berkeley, Hourly organic tracers using SV-TAG provide constrains for aerosol formation chemistry
9. Kate Skog, UW-Madison, SOA Formation from Aqueous Processing of BVOCs in the southeastern United States during SOAS
10. Patrick Brophy, Colorado State University, HR-ToF-CIMS measurements during the SOAS field study and FIX chamber study
11. Samantha Thompson, University of Colorado/CIRES, Gas/Particle partitioning of oxygenated organics
12. Weiwei Hu, CIRES, University of Colorado, Secondary Organic Aerosol Formation and Aging in a Flow Reactor in the Forested southeast US
13. Xinxin Li, University of North Carolina at Chapel Hill, Molecular Characterization of SOA in PM_{2.5} Collected at the Look Rock Site during SOAS
14. Abby Koss, NOAA & CIRES, VOC measurements at Centreville, AL site during SOAS
15. Shaojie Song, MIT, GEOS-Chem model simulation for NOMADSS Hg measurements in the boundary layer
16. Barry Baker, NOAA ARL, Comparisons with the NOAA P3 and CAMx Simulation
17. Bin Yuan, NOAA & CIRES, High time resolution measurements of VOCs using PTR-MS over oil and gas production region during NOMADSS
18. Eric Apel, NCAR ACD, Airborne Observations of VOCs during NOMADSS
19. Brian Lerner, NOAA & CIRES, A new analysis system for whole air sampling: description and early results
20. Hongyu Guo, Georgia Tech, Predicting particle pH in the southeast by ISORROPIA: Results from SOAS and beyond
21. Luping Su, Stony Brook Univ., On resolving the fate of reactive volatile organic compounds in the planetary boundary layer
22. Matthew Alvarado, Atmospheric and Environmental Research (AER), Ammonia Measurements by the Aura TES and the NPP Suomi CrIS Satellite Instruments

23. Pius Lee, ARL/NOAA, PBL and surface characteristics: Tower and IMPROVE site measurements during the Southeast Atmosphere Study 2013
24. Felipe Lopez-Hilfiker, University of Washington, The contribution of low volatility organics to total aerosol mass: Isoprene and monoterpene tracers
25. Harald Stark, CU Boulder / Aerodyne, Chemical Composition of Gas-Phase Oxidation Products from Biogenic sources in the southeast US during SOAS
26. Kevin McAvey, Purdue Univ., Terpene measurements and chemistry
27. John Ortega, NCAR ACD, Summary of aerosol measurements taken from the NSF C130 during NOMADSS 2013
28. Anwar Khan, Utrecht University, Semi-volatile gas phase Organic Compounds and Organic aerosol species measurements at Centerville, AL during SOAS
29. Ashley Corrigan, UC San Diego, Characterization of Regional Biogenic Secondary Organic Aerosol at Look Rock, Tennessee and Brent, Alabama during the 2013 Southern Oxidant and Aerosol Study (SOAS)
30. Claudia Mohr, University of Washington, Highly time resolved gas and particle phase measurements at Centerville with the FIGAERO-HRTOF-CIMS

Poster Session 2

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1. Eric Edgerton, ARA, Inc., First Look 14C Data During the Centerville, AL SOAS Campaign
2. George Hidy, Envair/Aerochem, Chemical Climatology of the Southeastern U.S. 1999-2013
3. Sam Hall, NCAR ACD, HARP photolysis frequencies during NOMADSS
4. Roger Tanner, TVA ERC Contractor, Trends in Concentrations of Atmospheric Gaseous and Particulate Species at the Look Rock, TN NCORE A
5. James Festa, UCLA, Observations of HONO, NO₂, and HCHO Using Limb Scanning DOAS During the NOMADSS Campaign
6. Lisa Kaser, NCAR, Isoprene and Monoterpene Fluxes during NOMADSS
7. Teresa Campos, NCAR
8. Steve Williams, NCAR EOL, NCAR's Earth Observing Laboratory (EOL) Scientific Data Management
9. Paul Romer, UC Berkeley, NO_x sources and sinks
10. Matthieu Riva, University of North Carolina, Chemical Characterization of Organosulfates and Acids Derived from BVOCs in PM_{2.5} Collected from Centerville During SOAS 2013
11. Monika Kopacz, NOAA/OAR/CPO, Overview of the NOAA Atmospheric Chemistry, Carbon Cycle & Climate (AC4) program
12. Trey Murschell, Colorado State Univ.
13. John B Nowak, Aerodyne Research Inc., Airborne Observations of Ammonia Emissions from North Carolina Swine Facilities
14. Jennifer Kaiser, University of Wisconsin-Madison
15. Ilana Pollack, NOAA & CIRES, Long-term trends and weekday-to-weekend differences in ozone, its precursors, and other secondary pollutants in Atlanta, Georgia
16. Kyung-Eun Min, NOAA & CIRES, Aircraft measurements of glyoxal and HONO during SENEX

2013

17. Philip Feiner, Penn State Univ., Ground-Based OH and HO₂ Measurements
18. Solomon T. Bairai, TVA, Historical Data as means of Evaluating SOAS 2013 Campaign at Look Rock, Tennessee Ncore Site
19. Chris Cantrell, University of Colorado, Peroxy Radicals Observed on the C-130 during NOMADSS
20. Jin Liao, NOAA & CIRES, Single particle measured by a time-of-flight aerosol mass spectrometer coupled with a light scattering module onboard NOAA P-3 aircraft during SENEX
21. Nick Wagner, NOAA & CIRES, Vertical Profiles of Extinction over the SEUS
22. Annmarie Carlton, Rutgers, Kappa Intercomparison at the Centreville Site During SOAS
23. Kate Cerully, Georgia Tech/TSI Inc., Investigating hygroscopicity, volatility, and oxidation state of ambient and water-soluble aerosol
24. Katy Zimmermann, UCSD, Size-resolved measurements of CCN activity at a ground-based site during SOAS 2013
25. Jack Lin, Georgia Tech, Cloud condensation nuclei measurements and calculated cloud droplet number during NOAA SENEX
26. John Mak, Stony Brook University, Vertical Profiles of OVOCs
27. Alexis Attwood, NOAA & CIRES, SMPS/CPC Intercomparison During SOAS
28. Louisa Emmons, NCAR ACD, Results from CAM-Chem/MEGAN during SAS