

TSRC Organic Particles in the Atmosphere: Formation, Properties, Processing, and Impact **Telluride Intermediate School at 725 West Colorado Ave
Telluride CO 81435**

Organizers: Faye McNeill, Columbia University,
Qi Zhang, University of California Davis

TSRC Hosts: Mark Kozak (970-708-4426)
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Lodging: Sara Friedberg (970-708-0622)

AGENDA

Monday, July 18, 2022

8:00 am - 12:00 pm		<i>FREE TIME</i>
11:45 am - 12:45 pm		LUNCH at Telluride Depot, 300 S. Townsend St.
		<i>PHASE, MORPHOLOGY, and PROPERTIES OF ATMOSPHERIC ORGANIC PARTICLES</i>
1:00 pm - 1:10 pm		Opening remarks by Faye McNeill and Qi Zhang
1:10 pm - 1:55 pm <i>Discussion Leader:</i> <i>Q i Z h a n g</i>		Andy Ault: A Single Particle Perspective on Isoprene Secondary Organic Aerosol Chemistry and Physicochemical Properties
1:55 pm - 2:40 pm <i>Discussion Leader:</i> <i>Q i Z h a n g</i>		Celia Faiola: Plant Stress Volatiles Influence Aerosol Viscosity, Phase Separation and Composition
2:40 pm - 2:50 pm		<i>BREAK</i>
2:50 pm - 3:35 pm <i>Discussion Leader:</i> <i>F a y e M c N e i l l</i>		Miriam Freedman: Dynamics of Liquid-Liquid Phase Separation and Measurements of Aerosol pH
3:35 pm - 4:20 pm <i>Discussion Leader:</i> <i>F a y e M c N e i l l</i>		Sergey Nizkorodov: Condensed-phase Organic Photochemistry in Atmospheric Particles: Effect on Chemical Composition and Properties
4:20 pm - 4:30 pm		<i>BREAK</i>
		<i>JOINT LECTURE WITH THE GAS-PHASE WORKSHOP</i>
4:30 pm - 5:15 pm <i>Discussion Leader:</i> <i>B e c k y A l e x a n d e r</i>		Kerri Pratt: Wintertime Atmospheric Chlorine Chemistry on Aerosols and Snow

Tuesday, July 19, 2022

8:00 am - 1:00 pm		<i>FREE TIME (Lunch on your own)</i>
		<i>ORGANIC AEROSOLS AND HEALTH</i>
1:05 pm - 1:50 pm <i>Discussion Leader:</i> <i>Q i Z h a n g</i>		Manabu Shiraiwa: Formation of Reactive Oxygen Species by Secondary Organic Aerosols.
1:50 pm - 2:35 pm <i>Discussion Leader:</i>		Yinon Rudich: Connecting Aerosol Composition to Possible Health Effects

<i>Q i Z h a n g</i>	
2:35 pm - 2:45 pm	BREAK
2:45 pm -3:30 pm <i>Discussion Leader:</i> <i>F a y e M c N e i l l</i>	Jose Jimenez: Controls on the Variability of Organic Aerosol Concentration in Biomass Burning Smoke, and Key Aspects of Airborne Disease Transmission
	SECONDARY ORGANIC AEROSOL: FIELD AND LABORATORY STUDIES
3:30 pm - 4:15 pm <i>Discussion Leader:</i> <i>F a y e M c N e i l l</i>	Chris Cappa: Secondary Aerosol in (Laboratory) Marine Environments
4:15 pm - 4:25 pm	BREAK
4:25 pm - 5:10 pm <i>Discussion Leader:</i> <i>F a y e M c N e i l l</i>	Astrid Kiendler-Scharr SOA Simulation Experiments: How to Represent the Atmosphere
5 : 1 0 - 6 : 3 0 P M	FREE TIME
6:30 pm - 7:15 pm <i>Depot opens at 6,</i> <i>non-alcoholic bevs served</i>	TSRC Town Talk Telluride Depot, 300 S. Townsend St. (Panel Discussion, "Science Meets Cancel Culture: Remedy or Repression")

Wednesday, July 20, 2022

8:00 am - 12:40 pm	FREE TIME (Lunch on your own)
	SECONDARY ORGANIC AEROSOL: FIELD AND LABORATORY STUDIES (CONT'D)
12:40 pm - 1:25 pm <i>Discussion Leader:</i> <i>Q i Z h a n g</i>	Doug Worsnop: Anthropogenic SOA over Chinese Megacities
1:25 pm - 2:10 pm <i>Discussion Leader:</i> <i>Q i Z h a n g</i>	Manishkumar Shrivastava: Tight Coupling of Surface and In-Plant Biochemistry and Convection Governs Key Fine Particulate Components over the Amazon Rainforest
2:10 pm - 2:20 pm	BREAK
2:20 pm - 3:05 pm <i>Discussion Leader:</i> <i>F a y e M c N e i l l</i>	Alla Zelenyuk: Laboratory and field studies of isoprene-derived SOA formation and properties
	THE ROLE OF NITROGEN
3:05 pm - 3:50 pm <i>Discussion Leader:</i> <i>F a y e M c N e i l l</i>	Juliane Fry: Nitrogen in the Netherlands: Drivers of secondary aerosol formation in an industrialized and agricultural landscape
3:50 pm - 4:00 pm	BREAK
4:00 pm - 4:45 pm <i>Discussion Leader:</i> <i>J u l i a n e F r y</i>	Qi Zhang: Organic nitrogen chemistry in atmospheric aerosols and droplets
4 : 4 5 - 5 : 3 0 p m <i>Discussion Leader:</i>	Jim Smith:

<i>Juliane Fry</i>	Recent insights on the role of organics in atmospheric nanoparticle formation and growth
5:30 pm - 7:30 pm	TSRC BBQ PICNIC Telluride Depot, 300 S. Townsend St.

Thursday, July 21, 2022

7:30 am - 8:00 am	Breakfast at TSRC
	<i>KINETICS, MODELING AND SIMULATIONS</i>
8:00 - 8:45 am <i>Discussion Leader:</i> <i>Chris Cappa</i>	Hartmut Herrmann: Studies on isoprene- and terpene-related SOA formation - Results from the lab, field and multiphase modeling
8:45 am - 9:30 am <i>Discussion Leader:</i> <i>Chris Cappa</i>	Kevin Wilson: A Kinetic Framework for Understanding Trace Gas Uptake and Reaction in Aqueous Droplets
9:30 am - 9:40 am	BREAK
9:40 am - 10:25 am <i>Discussion Leader:</i> <i>Faye McNeill</i>	Neil Donahue: Not All Radicals are Volatile (considerations of radical volatility and reactivity in the radical-VBS)
10:25 am - 11:10 am <i>Discussion Leader:</i> <i>Faye McNeill</i>	Kelley Barsanti: Linking Gas-Phase Chemistry in SOA Model Parameterizations
11:10 am - 11:15 am	BREAK
11:15 pm - 12:00 pm <i>Discussion Leader:</i> <i>Qi Zhang</i>	Havala Pye: Release the CRACCM! Mechanism Development to Address Multiple Endpoints
12:00 pm - 1:00 pm	LUNCH at TSRC, joint with Gas-Phase Workshop
	<i>JOINT LECTURE WITH THE GAS-PHASE WORKSHOP</i>
1:00 pm - 1:45 pm <i>Discussion Leader:</i> <i>Qi Zhang</i>	Faye McNeill AMORE Isoprene: Automated Model Reduction for improved air quality and SOA modeling in CMAQ and GEOS-Chem
1:45 pm - 6:30 pm	FREE TIME
6:30 pm - 8:00 pm	Pizza Party - Joint with Gas-Phase Workshop Telluride Depot, 300 S. Townsend St.

Friday, July 22, 2022

7:30 am - 8:45 am	Breakfast at TSRC
	<i>NEW DEVELOPMENTS</i>
8:45 am - 9:30 am <i>Discussion Leader:</i> <i>Qi Zhang</i>	Manjula Canagaratna: Organic Aerosol Mass Spectrometry: Developments in Instrumentation and Source Apportionment
9:30 am - 10:15 am <i>Discussion Leader:</i>	Alex Laskin: Unrecognized Urban Source of Atmospheric Nanoparticles

<i>Faye McNeill</i>	
10:15 am - 10:30 am	BREAK
10:30 am - 11:30 am	Parting Words, Future Chairs, etc.
	END