

## Monday

Monday 8:00 AM – 9:45 AM  
Tutorials I

Monday 10:00 AM – 11:45 AM  
Tutorials II

Monday 1:00 PM – 2:45 PM  
Tutorials III

Monday 2:00 PM – 4:30 PM  
AAAR Executive Committee Meeting (Isleta)

Monday 3:00 PM – 4:45 PM  
Tutorials IV

Monday 5:00 PM – 6:00 PM  
Community Engaged Research and the Empowerment of Disadvantaged  
Communities and Their Scholars (Ballroom B/C)

Monday 6:00 PM – 7:00 PM  
Refreshment Break

Monday 7:00 PM – 8:30 PM  
Geeks Who Drink Trivia for AAAR (Ballroom B/C)

## Tuesday

Tuesday 7:00 AM – 8:00 AM  
Committee Meetings I – Awards (Navajo)

Tuesday 7:00 AM – 8:00 AM  
Committee Meetings I – Endowment (Jemez)

Tuesday 7:00 AM – 8:00 AM  
Committee Meetings I – Internet (Nambe)

Tuesday 8:00 AM – 9:15 AM  
Plenary I

8:00 **Mayor of Albuquerque Welcome to AAAR** Timothy Keller, Faye McNeill, *Columbia University*

8:05 **Welcoming Remarks** Shanna Ratnesar-Shumate, Conference Chair, *US EPA & University of Miami*

8:10 **AEESP Lecture: Wash Day: Supporting Air Justice** Shirley Malcom, *AAAS*

**Moderator** Cliff Davidson, *Syracuse University*

9:00 **Sinclair and Mercer Awards Presentation, Announcement of 2024 Award Fellows** Kelley Barsanti, Lynn Russell,  
*University of California Riverside, University of California San Diego*

Tuesday 9:00 AM – 4:00 PM  
Exhibits Open

Tuesday 9:15 AM – 9:45 AM  
Coffee Break

Tuesday 9:45 AM – 11:30 AM  
Session I: Platform

1AA BIOAEROSOLS IN AGRICULTURE: SOURCES, RISKS AND MITIGATION I

LA CIENEGA – Caroline Duchaine and Stéphane Godbout, chairs

**1AA.1 Using Bioaerosol Sampling as Part of a One Health Integrated Risk Assessment for Pathogen Transmission in Animal Livestock Settings.** BENJAMIN ANDERSON, *University of Florida*. INVITED.  
9:45

**1AA.2 Antibiotic Resistance Genes from Agricultural Bioaerosols: A Major Eastern Canadian Study.** CAROLINE  
10:15 DUCHAINE, Nathalie Turgeon, Mahsa Baghdadi, Joanie Lemieux, Samantha Leclerc, Matthieu Girard, Patrick Brassard, Stéphane Godbout, *Université Laval*

**1AA.3 Surveillance of Coccidioides in Aerosols in Arizona.** AMELIA STOUT, Marieke L. Ramsey, Daniel R. Kollath, Megan  
10:30 C. Ruby, Bridget M. Barker, Pierre Herckes, Matthew Fraser, *Arizona State University*

**1AA.4 Measurement of Airborne DNA to Detect Arthropods Using Portable Particle Sampling.** SHALLON MUTSA JOZI,  
10:45 Amira Hansch, Nicolas Gustafson, Scotty Yang, Roger Schürch, Gabriel Isaacman-VanWertz, *Virginia Tech*

**1AA.5 Pig and Broiler Chicken Farm Fan Exhaust Air Sampling as a Proxy for Indoor Air Bioaerosol Microbiota.** JOANIE  
11:00 LEMIEUX, Asmaâ Khalloufi, Marc Veillette, Valérie Létourneau, Nathalie Turgeon, Marie-Lou Gaucher, Caroline Duchaine, *Université Laval*

**1AA.6 Canada at the Forefront of Agricultural Aerosol Research.** STÉPHANE GODBOUT, Caroline Duchaine, Shelley  
11:15 Kirychuk, James Dosman, Patrick Brassard, Valérie Létourneau, Nathalie Turgeon, Araceli Dalila Larios Martínez, Bernardo Predicala, Lifeng Zhang, Matthieu Girard, *Research and Development Institute for the Agri-environment*

1AC AEROSOL CHEMISTRY I: TERPENE OXIDATION AND SOA

BALLROOM B/C – Christopher Niedek and Gabriel Isaacman-VanWertz, chairs

**1AC.1 Monitoring Early-Generation Formation and Gas-to-Particle Phase Partitioning of Isoprene Oxidation Products by Ion Mobility Spectrometry Coupled to High-Resolution Chemical Ionization Mass Spectrometry.**  
9:45 REBECCA L. RICE, Molly Frauenheim, Matthieu Riva, Peter Mettke, Hartmut Herrmann, Siddharth Iyer, Sebastian Gerber, Stephan Graf, Felipe Lopez-Hilfiker, Michael Kamrath, Jason Surratt, Zhenfa Zhang, Avram Gold, *University of North Carolina at Chapel Hill*

**1AC.2 Constraining Gas Phase Yields and Reactive Uptake Coefficients of Isoprene-OH Oxidation Products onto Acidic Particles by Vocus Ammonia-Adduct Chemical Ionization Mass Spectrometry (Vocus NH<sub>4</sub><sup>+</sup> CIMS).**  
10:00 Jiayun Zhao, Sahir Gagan, Molly Frauenheim, Sining Niu, Jason Surratt, Zhenfa Zhang, Avram Gold, Renyi Zhang, YUE ZHANG, *Texas A&M University*

**1AC.3 Kinetic Investigation of Secondary Organic Aerosol Formation of Products from Isoprene and Alpha-Pinene Oxidation.** PETER METTKE, Laurent Poulain, Andreas Tilgner, Anke Mutzel, Martin Brüggemann, Hartmut Herrmann,  
10:15 *Leibniz Institute for Tropospheric Research*

**1AC.4 Synthetic, Experimental, and Computational Constraints on Pinene Secondary Organic Aerosol Formation.**  
10:30 CHRISTOPHER KENSETH, Jing Chen, Olivia Hakan, Nathan Dalleska, Henrik Kjaergaard, Brian Stoltz, Paul Wennberg, John Seinfeld, Joel A. Thornton, *University of Washington*

**1AC.5 Probing the Fate of Highly Oxygenated Molecules in Atmospheric Aerosols.** XUAN ZHANG, *University of California Merced*  
10:45



**IAC.6 Dependence of Reactive Oxygen Species Formation on Oxidation State of Biogenic Secondary Organic**

11:00 **Aerosols.** KASEY EDWARDS, Lena Gerritz, Manjula Canagaratna, Anita Avery, Mitchell Alton, Andrew Lambe, Sergey Nizkorodov, Manabu Shiraiwa, *University of California, Irvine*

**IAC.7 Influence of Peroxy Radical Fate on  $\alpha$ -Pinene Photooxidation Gas-Phase Product Distributions.** LESLY FRANCO

11:15 DELOYA, Erik Helstrom, Hannah Kenagy, Manjula Canagaratna, Jesse Kroll, *MIT*

IAP AEROSOL PHYSICS I: OPTICAL PROPERTIES

SAN MIGUEL – Chris Sorensen and Gwen Lawson, chairs

**IAP.1 Mixing State of Refractory Black Carbon, Optical Properties and Sources of Aerosol Particles in the European**

9:45 **Arctic Marine Boundary Layer.** ARUN BABU SUJA, Thomas Müller, Mira L. Pöhlker, Heike Wex, Andreas Held, Manuela van Pinxteren, Yifan Yang, Philipp Oehlke, Sabine Lühtrath, Holger Siebert, Theresa Mathes, Maik Merkel, Birgit Wehner, *Leibniz Institute for Tropospheric Research, Leipzig, Germany*

**IAP.2 Darwin's Dust and the Search for Signs of Past Life on Mars.** HANS MOOSMÜLLER, *Desert Research Institute*

10:00

**IAP.3 Correlation of Optical Properties with Particle Size, Morphology, and Crystal Structure for Multiple Sources of**

10:15 **Submicron Titanium Dioxide Particles.** SCHUYLER LOCKWOOD, Zezhen Cheng, Tanya Myers, Timothy Johnson, Alla Zelenyuk, *Pacific Northwest National Laboratory*

**IAP.4 Optical Properties of Light Absorbing Aerosol Particles at Elevated Relative Humidity.** GWEN RACHEL LAWSON,

10:30 Simon Xi Chen, Justin Langridge, Kate Szpek, Michael Cotterell, *University of Bristol*

**IAP.5 A New Mixing Rule for Imaginary Refractive Indices of Aerosols or Colloids in the Rayleigh Regime.** JUSTIN

10:45 MAUGHAN, Hans Moosmüller, Prakash Gautam, Christopher M. Sorensen, *Pratt Community College*

**IAP.6 Ideal Mixing of the Complex Refractive Index for Organic Internally Mixed Light Absorbing Aerosol Particles.**

11:00 SIMON XI CHEN, Gwen Rachel Lawson, Justin Langridge, Kate Szpek, James Allan, Michael Cotterell, *University of Bristol*

**IAP.7 Radiative Cooling in New York/New Jersey Metropolitan Areas by Wildfire Particulate Matter.** GEORGIOS A.

11:15 KELESIDIS, Constantinos Moularas, Hooman Parhizkar, Leonardo Calderón, Irini Tsiodra, Nikolaos Mihalopoulos, Ilias Kavouras, Panos G. Georgopoulos, Jose Guillermo Cedeno Laurent, Philip Demokritou, *Rutgers, The State University of New Jersey*

ICT COAST TO COAST CAMPAIGNS ON AEROSOLS, CLOUDS, CHEMISTRY, AND AIR QUALITY I: AEROSOL-CLOUD OBSERVATIONS FROM EPCAPE AND SCILLA ON THE CALIFORNIA COAST

MESILLA – Lynn Russell and Ryan Farley, chairs

**ICT.1 Influence of Gas Phase Compounds on CCN Activity Observed during the Eastern Pacific Cloud Aerosol**

9:45 **Precipitation Experiment.** MARKUS PETTERS, Elavarasi Ravichandran, Sanghee Han, Abigail Williams, Jeremy Dedrick, Christian Pelayo, Nattamon (Jeep) Maneenoi, Lauren Robinson, Rachel Chang, Michael Wheeler, Jeremy Wentzell, John Liggio, Lynn M. Russell, *University of California, Riverside*. INVITED.

**ICT.2 Contributions of Organic Factors to Particle Hygroscopicity and Cloud Condensation Nuclei during the**

10:00 **Eastern Pacific Cloud Aerosol Precipitation Experiment (EPCAPE).** VERONICA BERTA, Sanghee Han, Abigail Williams, Jeremy Dedrick, Christian Pelayo, Lynn M. Russell, Elavarasi Ravichandran, Markus Petters, Ryan Farley, Allison Aiken, Manvendra Dubey, *Scripps/UCSD*

**ICT.3 Marine and Anthropogenic Effects on Ultrafine Aerosol Composition during the Eastern Pacific Cloud Aerosol Precipitation Experiment.** ANNA KAPP, Kristen Cramer, Nhu-Naomi Nguyen, James Smith, *Univeristy of California, Irvine*

**ICT.4 Aerosol and Trace Gas Composition and Source Apportionment in Two Coastal Cities: Houston, TX and San Diego, CA.** MARIA ZAWADOWICZ, Mirtha Salatti, Chongai Kuang, Ashish Singh, Janek Uin, Ogochukwu Enekwizu, Arthur J. Sedlacek, Rebecca Trojanowski, Olga Mayol-Bracero, *Brookhaven National Laboratory*

**ICT.5 Influence of Urban and Marine Aerosol on Coastal Cloud Processing at Mt. Soledad in Southern California during EPCAPE.** RYAN FARLEY, Kyle Gorkowski, James E. Lee, Katherine Benedict, Abu Sayeed Md Shawon, Nevil Franco, Veronica Berta, Lynn M. Russell, Manvendra Dubey, Allison Aiken, *Los Alamos National Laboratory*

**ICT.6 Black Carbon Aerosol Characteristics and Aerosol-Cloud Interactions near the Coast of Southern California.** 11:00 DONGLI WANG, Bradley Ries, Minghao Han, Alexander B. MacDonald, Mason Leandro, Sierra Bollinger, Lisa Welp-Smith, Roya Bahreini, Anthony Bucholtz, Patrick Chuang, Mikael Witte, Don Collins, Andrew Metcalf, *Clemson University*

**ICT.7 Twelve Months of Aerosol and Cloud Microphysics during the Eastern Pacific Cloud Aerosol Precipitation Experiment (EPCAPE).** LYNN M. RUSSELL, Abigail Williams, Jeremy Dedrick, Veronica Berta, Christian Pelayo, Nattamon (Jeep) Maneenoi, Sanghee Han, Atsushi Osawa, Louise Tibia, Karoline Braga, Elavarasi Ravichandran, Markus Petters, Lauren Robinson, Rachel Chang, Michael Wheeler, Jeremy Wentzell, John Liggio, Israel Silber, EPCAPE Science Team, *Scripps/UCSD*

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11A INDOOR AEROSOLS I: EMISSIONS AND SOURCES OF INDOOR AEROSOLS  
*RUIDOSO/PECOS* – Anita Avery and Sabrina Westgate, chairs

**11A.1 Comparing Human Emissions of Volatile Organic Compounds during University Lectures and Final Exams.** 9:45 SABRINA WESTGATE, Yutong Liang, Nga Lee Ng, *Georgia Institute of Technology*

**11A.2 Influence of Human Activities and Occupancy on the Emission of Indoor Particles from Respiratory and Non-respiratory Sources.** P. S. GANESH SUBRAMANIAN, Joseph V. Puthussery, Yuqing Mao, Sudheer Salana, Thanh H. Nguyen, Ty Newell, Vishal Verma, *University of Illinois Urbana-Champaign*

**11A.3 Assessing the Influence of Hydration Levels on Respiratory Aerosol Production.** Mahender Singh Rawat, 10:15 Dinushani Senarathna, Byron D. Erath, Sumona Mondal, Sarah K. Sirsat, ANDREA FERRO, *Clarkson University*

**11A.4 The Impacts of Dust Events on Indoor Air Quality.** KARIN ARDON-DRYER, *Department of Geosciences, Texas Tech University* 10:30

**11A.5 Influence of Sage Burning on Indoor Air Quality: A Case Study Using Low-Cost Sensors.** DANIEL B. CURTIS, Genna 10:45 Munoz, *California State University, Fullerton*

**11A.6 Indoor SOA from OH Radical Chemistry Initiated by Chlorine.** Pearl Abue, KATARINA KONON, Lea El Khoury, Mrinali 11:00 Modi, Lea Hildebrandt Ruiz, *University of Texas at Austin*

**11A.7 Aerosol Formation Initiated by Oxidation of Limonene: A Comparison of Oxidant Chemistry.** ANITA AVERY, 11:15 Mitchell Alton, Manjula Canagaratna, Andrew Lambe, *Aerodyne Research, Inc.*

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11M INSTRUMENTATION AND METHODS I: OPTICS AND SIZING  
*BALLROOM A* – Claudio Mazzoleni and Felix Stollberger, chairs

**11M.1 Frequency-Resolved Single-Particle Photothermal Interferometry.** FELIX STOLLBERGER, Michael Gleichweit, Ruth 9:45 Signorell, Alexander Bergmann, *Graz University of Technology*

**11M.2 Broadband Light Scattering and Cavity Ring-Down Spectroscopy Measurements on Single Light-Absorbing 10:00 Aerosol Particles.** AIDAN RAFFERTY, Andrew J. Orr-Ewing, Jonathan P. Reid, Michael Cotterell, *University of Oxford*

**11M.3 Machine Learning to Identify and Define Clusters of Aerosols According to Their Optical Properties.** Zachary 10:15 McQueen, Ryan Poland, GEOFFREY SMITH, *University of Georgia*

**11M.4 Flow-Through Integrating Cavity Optical Absorption Spectrometer for In-Situ Cloud Water Condensed Phase 10:30 Composition Measurement: Design Constraints and Initial Validation.** BENJAMIN LANG, Alexander Bergmann, *Graz University of Technology*

**11M.5 Particle Sizing by Novel Scattered Light-Fluctuation Analysis.** STEPHAN GROSSE, Lukas Oeser, Lars Hillemann, J. 10:45 Lienig, *ToPAS Inc., Minneapolis, USA*

**11M.6 More Information from an Optical Particle Counter.** DANIEL MURPHY, NOAA CSL 11:00

**11M.7 Method for Optimization of Experiment Design in Aerosol Size Distribution Measurement Using Multi-Angle 11:15 Light Scattering.** KIRAN SEETALA, Adam Hammond, *Sandia National Laboratories*

**Tuesday 11:30 AM – 1:00 PM**  
**AAAR Board of Directors Luncheon (Isleta)**

**Tuesday 12:00 PM – 1:00 PM**  
**Committee Meetings II – Working Group Chairs (Navajo)**

**Tuesday 12:00 PM – 1:00 PM**  
**New PI Gathering (Ballroom B/C)**

**Tuesday 1:00 PM – 3:00 PM**  
**Session 2: Poster**

2AA BIOAEROSOLS IN AGRICULTURE: SOURCES, RISKS AND MITIGATION 2  
HALL 3 – Dalila Larios and Valérie Létourneau, chairs

**2AA.1 The Sol-Air Laboratory: An Innovative Experimental Setup for Quantifying Airborne Biocontaminant 1:00 Emissions from Field Agricultural Operations.** Patrick Brassard, ARACELI DALILA LARIOS MARTÍNEZ, Stéphane Godbout, Laura Mila Saavedra, Angela Trivino Arevalo, Nathalie Turgeon, Valérie Létourneau, Mahsa Baghdadi, Caroline Duchaine, *Research and Development Institute for the Agri-Environment*

**2AA.2 Eastern Canadian Hatching Egg Producing Farms: Carbon Dioxide, Ammonia and Airborne Dust 1:00 Concentrations, and Animal and Human Health.** VALÉRIE LÉTOURNEAU, Geneviève Dion, Marie-Lou Gaucher, Caroline Duchaine, *Quebec Heart and Lung Institute*

**2AA.3 Dispersion Modelling of Bioaerosols Emitted from Livestock Operations: Fate of Microbes and Antibiotic- 1:00 Resistance Genes.** JOANIE LEMIEUX, Patrick O'Shaughnessy, Araceli Dalila Larios Martínez, Marc Veillette, Valérie Létourneau, Nathalie Turgeon, Cindy Dumais, Stéphane Godbout, Caroline Duchaine, *Université Laval*

**2AA.4 Conifer Needles as Passive Air Samplers for Biomonitoring Emissions from Swine Farms.** SAMANTHA LECLERC, 1:00 Paul George, Florent Rossi, Nathalie Turgeon, Marc Veillette, Caroline Duchaine, *Université Laval*

- 2AA.5 Evaluating Airflow Rates in Traditional and Alternative Egg Production Farms Equipped with Mechanical Ventilation through Direct and Indirect Measurements.** ANDREA KATHERIN CARRANZA DIAZ, Araceli Dalila Larios Martínez, Magali-Wen St-Germain, Valérie Létourneau, Caroline Duchaine, Stéphane Godbout, Sébastien Fournel, *Research and Development Institute for the Agri-environment*  
1:00
- 2AA.6 Assessment and Characterization of Bioaerosol from Residential Area of Naini, Prayagraj, Uttar Pradesh, India.** HARISON MASIH, SHUATS, (Allahabad) Prayagraj, Uttar Pradesh, India  
1:00
- 2AA.7 Comparison of Two Air Samplers for Outdoor Monitoring of Low Concentration Bioaerosols and Antibiotic Resistance Genes.** NATHALIE TURGEON, Mahsa Baghdadi, Samantha Leclerc, Amélia Bélanger Cayouette, Joanie Lemieux, Patrick Brassard, Stéphane Godbout, Caroline Duchaine, *Université Laval*  
1:00
- 2AA.8 Water-based Cooling Strategies for Livestock Operations: A Potential Source of Waterborne Respiratory Pathogens Bioaerosols.** NYCKIE ALBERT, Valérie Létourneau, Vicki Clouet-Côté, Araceli Dalila Larios Martínez, Stéphane Godbout, Caroline Duchaine, *Université Laval*  
1:00
- 2AA.9 Modeling Gaseous Nitrogen Emissions from Soils and Their Impacts on Atmospheric Chemistry.** BRIAN GAUDET, ManishKumar Shrivastava, Jie Zhang, Quazi Rasool, Jerome Fast, Rahul Zaveri, Sheng-Lun Tai, *Pacific Northwest National Laboratory*  
1:00
- 2AA.10 Antibiotic Resistance Genes in Air Near Swine and Dairy Farms.** DAVID KORMOS, Gabriel Isaacman-VanWertz, Jactone Ogejo, Amy Pruden, Linsey Marr, *Virginia Tech*  
1:00
- 2AA.11 Strategies for Improving Air Quality in Next-generation Livestock Buildings Integrating Animal Welfare Considerations.** ARACELI DALILA LARIOS MARTÍNEZ, Valérie Létourneau, Vicki Clouet-Côté, Inès D Dhib, Caroline Duchaine, Sébastien Fournel, Alexis Ruiz-González, Magali-Wen St-Germain, Laurianne Gratton, Andrea Katherin Carranza Diaz, Mahsa Baghdadi, Stéphane Godbout, *Agri-Food Engineering Division, Research and Development Ins*  
1:00
- 2AA.12 Seasonal Variations in Microbiome Composition in a Residential Chicken Coop.** JOHN CATE, Maria King, *Texas A&M University*  
1:00
- 2AA.13 Applying CRISPR-Cas Technology to Bioaerosol Environmental DNA for the Monitoring of Pathogenic Species Such as P. Infestans.** DAVID O'CONNOR, Weili Guo, Ciara Mcdermott, Steven Kildea, Anne Parle-McDermott, *Dublin City University*  
1:00

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2AC AEROSOL CHEMISTRY X

HALL 3

- 2AC.1 Uncertainty Analysis for Kinetic Simulation of Alpha-Pinene Ozonolysis SOA Formation based on Explored Chemical Processes.** Chuanyang Shen, HAOFEI ZHANG, *University of California, Riverside*  
1:00
- 2AC.2 Unexpected Stereochemical Specificity for Organosulfates Formed from Isoprene-Epoxyde Ring Opening Reactions as a Function of Aerosol Acidity.** ANDREW AULT, Madeline Cooke, N. Cazimir Armstrong, Cara Waters, Qiyuan Zhao, Scarlet Aguilar-Martinez, Yuzhi Chen, Ziyang Lei, Zhenfa Zhang, Avram Gold, Paul Zimmerman, Jason Surratt, *University of Michigan*  
1:00
- 2AC.3 Atmospheric Aerosol Sulfur Distribution and Speciation in Mexico City: Sulfate, Organosulfates, and Isoprene-Derived Secondary Organic Aerosol from Low NO Pathways.** MADELINE COOKE, Cara Waters, Joel Asare, Jessica Mirrielees, Andrew Holen, Molly Fraunheim, Zhenfa Zhang, Avram Gold, Kerri Pratt, Jason Surratt, Luis Ladino, Andrew Ault, *University of Michigan*  
1:00
- 2AC.4 Determination of HCl Solubility in Proxies for Wildfire Smoke Aerosol.** RAE POOLEY, Megan Willis, *Colorado State University*  
1:00

- 2AC.5 Insights into Secondary Organic Aerosol Formation from Volatile Chemical Products.** HUAWEI LI, Don Collins, 1:00 David R. Cocker III, *University of California, Riverside*
- 2AC.6 Molecular Composition, Absorption, and Oxidative Potential of Urban Burning Aerosols.** Qiaorong Xie, 1:00 Katherine Hopstock, Kevin Ridgway, Jamie Cast, Shantanu Jathar, Alexander Laskin, Christian L'Orange, Sergey Nizkorodov, LUIS RUIZ ARMENTA, *University of California, Irvine*
- 2AC.7 Global and Regional Simulations of EPFR Concentrations and ROS Formation in Lung Lining Fluid.** MEREDITH 1:00 SCHERVISH, Regina Luu, Simon Rosanka, Pascale Lakey, Annmarie Carlton, Manabu Shiraiwa, *University of California, Irvine*
- 2AC.8 Simulations of Cloud and Aerosol-phase Sulfate Formation Using GAMMA 6.0.** SANDHYA SETHURAMAN, Zifeng 1:00 Tang, Kedong Gong, Vicki Grassian, V. Faye McNeill, *Columbia University*
- 2AC.9 AMORE V2.0: A Comprehensive Algorithm for the Automated Model Reduction of Atmospheric Oxidation 1:00 Mechanisms.** FORWOOD WISER, V. Faye McNeill, Siddhartha Sen, Daniel Westervelt, Daven Henze, Arlene Fiore, Julia Lee-Taylor, Kelley Barsanti, John Orlando, Zhizhao Wang, *Columbia University*
- 2AC.11 Direct Determination of Melting Temperatures for Individual, Sub-Micron  $\alpha$ -Pinene Derived Secondary 1:00 Organic Aerosol Particles.** KATHERINE KOLOZSVARI, Natasha Garner, David Bell, Jens Top, Markus Ammann, Andrew Ault, *University of Michigan*
- 2AC.12 Photooxidative Fate of Atmospheric Methylated Selenium Compounds.** ERIN BOWEY, Alexa Canchola, Michael 1:00 Lum, Linhui Tian, Kunpeng Chen, Ying Zhou, Don Collins, Ying-Hsuan Lin, Roya Bahreini, *University of California, Riverside*
- 2AC.13 Ozonolysis of Polycyclic Aromatic Hydrocarbons on the Surfaces of Secondary Organic Aerosol Particles 1:00 and its Effects on Particle Properties.** ALLA ZELENYUK, Kaitlyn J. Suski, ManishKumar Shrivastava, Simeon Schum, Lynn Mazzoleni, *Pacific Northwest National Laboratory*
- 2AC.14 Testing the Photosensitized Production of Sulfate Radicals in Ammonium Sulfate Aerosol Liquid Water 1:00 Mimics.** ANGELINA PETERSEN, Tran Nguyen, *University of California, Davis*
- 2AC.15 Recreating Explosion Conditions from Remnant Soot Aerosol.** JAMES E. LEE, Allison Aiken, Rachel Huber, 1:00 Madeline Stricklin, Ryan Farley, *Los Alamos National Laboratory*
- 2AC.16 Evaluation of Long-term Monitoring of Polycyclic Aromatic Compounds across Canada under the National 1:00 Air Pollution Surveillance Program.** ANDRZEJ WNOROWSKI, Valbona Celso, *Environment and Climate Change Canada*
- 2AC.17 Property Characterization and Continuous-Flow Measurements of Dark and Irradiated Methylglyoxal- 1:00 Ammonium-sulfate Aqueous Aerosols.** ERIN O'LEARY, Maia Merriman, Bruno Loyola San Martin, Katherine Pierre-Louis, Joseph Woo, *Lafayette College*
- 2AC.18 Modeling Size-dependent Processes in Multiphase Reactive Systems.** Sandhya Sethuraman, Zifeng Tang, 1:00 Kedong Gong, Adriane Tam, Vicki Grassian, V. FAYE MCNEILL, *Columbia University*
- 2AC.19 Aqueous Hydroxyl Radical (OH) Oxidation of Organosulfates.** SURBHI GUPTA, Tran Nguyen, *University of 1:00 California, Davis*
- 2AC.20 Formation of Environmentally Persistent Free Radicals in Aromatic Secondary Organic Aerosols.** CAITLYN 1:00 CRUZ, Kasey Edwards, Lena Gerritz, Manabu Shiraiwa, *University of California, Irvine*



**2AC.21 Effect of Iron-Containing Mineral Dust on Photodegradation of Secondary Organic Aerosols.** ANTHONY JUE,  
1:00 Sergey Nizkorodov, *University of California, Irvine*

**2AC.22 Investigating Aerosol Acidity through Ammonia Measurements Combined with Single Particle-  
1:00 Microspectroscopy.** ALI ALOTBI, Yao Xiao, Emily Costa, Kayleigh Reilly, Tiantian Zhu, Mitchell Rogers, Xu He, Cara  
Waters, Drew Gentner, Rachel O'Brien, Andrew Ault, *University of Michigan*

**2AC.23 Local and Regional Influences on Aerosol Composition at two Coastal Sites during EPCAPE.** SANGHEE HAN,  
1:00 Abigail Williams, Veronica Berta, Jeramy Dedrick, Christian Pelayo, Nattamon (Jeep) Maneenoi, Atsushi Osawa,  
Maria Zawadowicz, Arthur J. Sedlacek, Lynn M. Russell, *Scripps/UCSD*

**2AC.24 Investigating Particle-Phase Chemistry between Products of Oxidation of  $\alpha$ -Pinene and Phenol.** SIJIA LIU,  
1:00 Celia Faiola, Sergey Nizkorodov, *University of California, Irvine*

2AP AEROSOL PHYSICS V: OPTICAL PROPERTIES II  
HALL 3

**2AP.1 Black Carbon Optical Properties in El Paso Airshed.** JOSCELYNE GUZMAN - GONZALEZ, Fatema Tuz Zohora, Rosa  
1:00 M. Fitzgerald, Laura Fierce, Payton Beeler, *University of Texas at El Paso*

**2AP.2 Exploring Temperature Dependence on Optical Properties: Data to Inform Exoplanet Modeling.** JACOPO  
1:00 TERRAGNI, Erika Kohler, Vincent Kofman, *NASA Goddard Space Flight Center*

**2AP.3 Optical properties of Aluminum Oxide Aerosols: A Candidate for Stratospheric Aerosol Injection.** TAVEEN  
1:00 KAPOOR, Prabhav Upadhyay, Benjamin Sumlin, Dhruv Mitroo, Guodong Ren, Rohan Mishra, Rajan K. Chakrabarty,  
*Washington University in St. Louis*

**2AP.4 Spectral Light Absorption in Aerosol Emissions from Anthropogenic Biomass Burning in India.** Chimurkar  
1:00 Navinya, Taveen Kapoor, CHANDRA VENKATARAMAN, Gupta Anurag, Harish C Phuleria, Rajan K. Chakrabarty,  
*Indian Institute of Technology Bombay*

**2AP.5 Modelling the Frequency Dependency of the Photothermal Signal From Single Aerosol Particles at Low  
1:00 Relative Humidity.** FELIX STOLLBERGER, Alexander Bergmann, *Graz University of Technology*

**2AP.6 Dark Brown Carbon Snow Darkening Effect: An Experimental Validation.** GANESH CHELLUBOYINA, Taveen  
1:00 Kapoor, Rajan K. Chakrabarty, *Washington University in St. Louis*

**2AP.7 Stratospheric Aerosol Injection: An Engineering Review.** MIRANDA HACK, Gernot Wagner, Dan Steingart, V. Faye  
1:00 McNeill, *Columbia University*

**2AP.8 Measuring Complex Particulate Refractive Index Spectra.** CHRISTOPHER M. SORENSEN, Prakash Gautam, Sami  
1:00 Labidi, Justin Maughan, Kurt Ehlers, Hans Moosmüller, *Kansas State University*

**2AP.9 Finite Element-Based Extended Kalman Filter and Smoother for Retrieval of Aerosol Size Distributions and  
1:00 Process Rates.** TEEMU SALMINEN, Kari E.J. Lehtinen, Matti Niskanen, Pietari Mönkkönen, Jari P. Kaipio, Aku  
Seppänen, *University of Eastern Finland*

**2AP.10 Volume Additivity of Nanoscale Aerosol Mixtures.** SAMANTHA LI, Sarah Petters, *University of California, Riverside*  
1:00

2BA BIOAEROSOLS III  
HALL 3

- 2BA.1 Evaluation of a Novel Bioaerosol Collection System against Standard Bioaerosol Samplers.** AMANDA WEILER, 1:00 Nora Chan, Nathalie Turgeon, Caroline Duchaine, Loïc Coudron, Ian Johnston, Timothy Foot, *Defence Research and Development Canada*
- 2BA.2 Exploring Pig Finishing Buildings and Broiler Chicken Barns Contribution to Outdoor Airborne Microbiota and Antibiotic-Resistance Genes.** JOANIE LEMIEUX, Marc Veillette, Cindy Dumais, Valérie Létourneau, Nathalie Turgeon, Caroline Duchaine, *Université Laval*
- 2BA.3 Comparing Two Novel Passive Sampling Methods to Characterize Bioaerosols Emissions From Agricultural Activities: Rutgers Electrostatic Passive Sampler (REPS) and Conifer Needles.** SAMANTHA LECLERC, Gediminas Mainelis, Nathalie Turgeon, Florent Rossi, Kevin Dillon, Paul George, Marc Veillette, Caroline Duchaine, *Université Laval*
- 2BA.4 Development and Validation of a Large-Scale Controlled Aerosol Chamber to Evaluate Air Purifier Efficiency Against Live Viral Aerosols.** VINCENT BROCHU, Marc Veillette, Nathalie Turgeon, Gregory Nilsson, Liang (Grace) Zhou, Caroline Duchaine, *Université Laval*
- 2BA.5 Prevalence and Seasonal Variations of Salmonella, STEC, and L. monocytogenes in the Air and Surface at a Meat Processing Plant.** MEIYI ZHANG, Maria King, *Texas A&M University*
- 2BA.7 Understanding the Impacts of Convective Storms on Bioaerosols in a Grassland Environment.** TERESA FELDMAN, Janeshta Fernando, Chamari Mampage, Claudia Mignani, Marina Nieto-Caballero, Thomas C. J. Hill, Brian Heffernan, Drew Juergensen, Christine Neumaier, Tyler Barbero, Charles Davis, Lexi Sherman, Ben Ascher, Jacob Escobedo, Nick Falk, Sean Freeman, Gabrielle Leung, Allie Mazurek, Daniel Veloso-Aguila, Leah Grant, Susan van den Heever, Russell Perkins, Paul DeMott, Sonia Kreidenweis, Elizabeth Stone, *University of Iowa*
- 2BA.8 Dynamic Patterns and Health Implications of Bioaerosols in Qatar's Arid Climate: A Year-Long Observational Study.** AZHAR SIDDIQUE, Kashif Rasool, Bilal Sajjad, Khadeeja Abdul Jabbar, Shima S. El-Malah, M. Rami Alfarrar, Fares A.O Almomani, *QEERI, Hamad Bin Khalifa University, Doha, Qatar*
- 2BA.9 Occupational Exposure Monitoring of Airborne Respiratory Viruses in Outpatient Medical Clinics.** William B. Vass, AMIN SHIRKHANI, Mohammad Washeem, SriPriya Nannu Shankar, Yuetong Zhang, Tracey Moquin, Rebecca Messcher, Matthew D. Jansen, James R Clugston, Matthew Walser, Yang Yang, John Lednicki, Z. Hugh Fan, Chang Yu Wu, *University of Florida*
- 2BA.10 Using Tryptophan as an Indicator of pH in Bioaerosol Particle Fluorescence.** HUNTER RICHARDS, Emily Hong, 1:00 Zhenyu Ma, Allen E. Haddrell, Herek L. Clack, *University of Michigan*
- 2BA.11 Concentrating Viable Airborne Pathogens Using a Multi-Nozzle Virtual Impactor Paired With a Compact Water-Based Condensation Air Sampler.** William B. Vass, SRIPRIYA NANNU SHANKAR, John Lednicki, Morteza Alipanah, Braden Stump, Patricia Keady, Z. Hugh Fan, Chang-Yu Wu, *University of Florida*
- 2BA.12 Comparative Analysis of Wet and Dry Deposition of Bioaerosol Tracers.** JANESHTA FERNANDO, Teresa Feldman, 1:00 Chamari Mampage, Claudia Mignani, Marina Nieto-Caballero, Thomas C. J. Hill, Brian Heffernan, Drew Juergensen, Christine Neumaier, Tyler Barbero, Charles Davis, Lexi Sherman, Ben Ascher, Jacob Escobedo, Nick Falk, Sean Freeman, Gabrielle Leung, Allie Mazurek, Daniel Veloso-Aguila, Leah Grant, Susan van den Heever, Russell Perkins, Paul DeMott, Sonia Kreidenweis, Elizabeth Stone, *University of Iowa*
- 2BA.13 Hygroscopic Impact on Single Respiratory Bioaerosol Evaporation.** AKHIL TEJA KAMBHAMPATI, Mark A. Hoffman, 1:00 *Auburn University*
- 2BA.14 Measurement of Influenza Virus in Air Using a High-Enrichment, High-Flow Electrostatic Precipitator.** JAE GIL LEE, Chanhwi Park, Jaesung Jang, *Ulsan National Institute of Science and Technology, Korea*



**2BA.15 Numerical Study on the Effect of Indoor Air Condition on Particle Growth in Water Condensation-Based Sampling Devices.** WONYOUng JEON, Junbeom Jang, Jaesung Jang, *Ulsan National Institute of Science and Technology, Korea*  
1:00

**2BA.16 WBS-4+: An Assessment of Its Use as a Bioaerosol and Anthropogenic Aerosol Monitor.** DAVID O'CONNOR, Jerry Clancy, Emma Markey, Moises Martinez-Bracero, Dominique Baisnee, Roland Sandra-Esteve, *Dublin City University*  
1:00

2CE CHEMICALS OF EMERGING CONCERN IN AEROSOL: SOURCES, TRANSFORMATIONS, AND IMPACTS VI: POSTERS  
HALL 3

**2CE.2 Atmospheric Oxidation of Per- and Polyfluoroalkyl Substances (PFAS) Thermal Decomposition Products and Its Potential for Secondary Organic Aerosol Formation.** LILLIAN TRAN, Linhui Tian, Ying-Hsuan Lin, *University of California, Riverside*  
1:00

**2CE.4 Criteria, Greenhouse Gas, and Hazardous Air Pollutant Emissions Factors from Residential Cordwood and Pellet Stoves Using an Integrated Duty Cycle Test Protocol.** NORA TRAVISS, George Allen, Mahdi Ahmadi, *NESCAUM*  
1:00

**2CE.5 Characterization of PFAS Using Temperature-Programmed-Desorption Direct Analysis in Real Time Coupled with Mass Spectrometry.** CATALINA BOTERO-CARRIZOSA, Emily Halpern, Alexander Laskin, *Purdue University*  
1:00

**2CE.6 Per and Polyfluoroalkyl Substances in Urban Atmospheric Particles in Asian Countries: A Review.** SHAZIA SHIFA, Lovleen Gupta, *Delhi Technological University*  
1:00

**2CE.8 Aerosol Emissions from Structural Fires at the Wildland-Urban Interface: From Carpets to Couches and Shingles to Studs.** KEVIN RIDGWAY, Anna Helfrich, Jamie Cast, Cristian Medina, Miranda Trujillo, Christian L'Orange, Shantanu Jathar, *Colorado State University*  
1:00

**2CE.9 Chemical Speciation of Biomass Burnings from Shrubland Sagebrush Ecosystem Vegetation.** BIANCA MARTINEZ, Chiranjivi Bhattarai, Andrey Khlystov, *Desert Research Institute*  
1:00

**2CE.10 Comparison of the Estimated and the Measured Concentrations of Secondary Organic Aerosol Based on the Measured Concentration of Volatile Organic Compounds (VOC).** JI-WON JEON, Young-Ji Han, Sung-Won Park, Pyung-rae Kim, Hyo-Won Lee, Yun-seo Lee, Soo-Jin Jeong, *Kangwon National University*  
1:00

**2CE.12 Single-Particle Perspective on Aerosol Sources and Aging in New York City and a Downwind Coastal Site during NYC-METS.** KAYLEIGH REILLY, Emily Costa, Yao Xiao, Tiantian Zhu, Xena Mansoura, Zezhen Cheng, Nurun Nahar Lata, Swarup China, Drew Gentner, Rachel O'Brien, Andrew Ault, *University of Michigan*  
1:00

2CT COAST TO COAST CAMPAIGNS ON AEROSOLS, CLOUDS, CHEMISTRY, AND AIR QUALITY V: POSTERS  
HALL 3 – Drew Gentner and Ann Dillner, chairs

**2CT.1 Initial Measurements and Findings from the Atmospheric Science and Chemistry Measurement Network (ASCENT) Houston-Liberty site.** SUBIN YOON, Fangzhou Guo, Shan Zhou, Robert Griffin, Roya Bahreini, Ann M. Dillner, Armistead G. Russell, Nga Lee Ng, James Flynn, *University of Houston*  
1:00

**2CT.2 Source Apportionment of Aerosols at ASCENT Network Site Cheeka Peak Observatory.** OLIVIA HAKAN, Odelle Hadley, Philip Rund, Courtney Winck, Roya Bahreini, Ann M. Dillner, Armistead G. Russell, Nga Lee Ng, Joel A. Thornton, *University of Washington*  
1:00

- 2CT.3 Aerosol Chemical Composition and Cloud Interactions: Findings from the SCILLA Campaign.** BRADLEY RIES, 1:00 Alexander B. MacDonald, Dongli Wang, Minghao Han, Sierra Bollinger, Mason Leandro, Lisa Welp-Smith, Patrick Chuang, Mikael Witte, Andrew Metcalf, Don Collins, Roya Bahreini, *University of California, Riverside*
- 2CT.5 Aerosol Formation from Oil and Gas Development in the Eagle Ford Shale.** LEA EL KHOURY, Katarina Konon, 1:00 Austin Turner, Evelyn Deveraux, Chou-Hsien Lin, Pearl Abue, Shihao Zhai, Albert Kyi, Mrinali Modi, Leif Jahn, Daniel C. Blomdahl, Pawel K. Misztal, Lea Hildebrandt Ruiz, *University of Texas at Austin*
- 2CT.6 Volatile Organic Compound Emissions from Oil and Gas Development and Impacts on Aerosol Formation.** 1:00 KATARINA KONON, Pearl Abue, Leif Jahn, Lea El Khoury, Austin Turner, Daniel C. Blomdahl, Evelyn Deveraux, Chou-Hsien Lin, Mrinali Modi, Kristi McPherson, David T. Allen, Pawel K. Misztal, Lea Hildebrandt Ruiz, *University of Texas at Austin*
- 2CT.7 Dark Brown Carbon Dominates Aerosol Light Absorption in Urban Anthropogenic Emissions.** YUEZHI (AUGUST) 1:00 Li, Taveen Kapoor, Joseph V. Puthussery, Gregory W. Vandergrift, Zezhen Cheng, Guodong Ren, Joshin Kumar, Nurun Nahar Lata, Benjamin Sumlin, Felipe Rivera-Adorno, Alexander Laskin, Rohan Mishra, Swarup China, Rajan K. Chakrabarty, *Washington University in St. Louis*
- 2CT.8 Investigating the Complex Interactions between Aerosols and Meteorology and Their Impacts on the Aerosol Direct Radiative Forcing in Coastal Texas.** TAMANNA SUBBA, Michael Jensen, Ashish Singh, Rebecca Trojanowski, Dié Wang, Maria Zawadowicz, Chongai Kuang, *Brookhaven National Laboratory*
- 2CT.9 Demonstration of Sensitivity of Backscattering to Spherical Particle Physical Properties: Size, Refractive Index, and Shape Deviations.** PRAKASH GAUTAM, Hans Moosmüller, Christopher M. Sorensen, Justin Maughan, *Desert Research Institute*
- 2CT.10 Characterization of Submicron Aerosols at the ASCENT Site in the Pristine North American Boreal Forest.** 1:00 JAMES CAMPBELL, Roya Bahreini, Ann M. Dillner, Armistead G. Russell, Nga Lee Ng, Jingqiu Mao, *University of Alaska Fairbanks*
- 2CT.11 Aerosol-Correlated Activation and Supersaturation Variability in Coastal Marine Stratocumulus during EPCAPE.** JERAMY DEDRICK, Atsushi Osawa, Lynn M. Russell, *Scripps Institution of Oceanography*

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2HR HEALTH RELATED IV: POSTER SESSION

HALL 3

- 2HR.1 Exposure to Aged Vaping Emissions at an Air-Liquid Interface: Potential for Disruption of the Respiratory Epithelial Barrier.** WONSIK WOO, Linhui Tian, Ying-Hsuan Lin, *University of California, Riverside* 1:00
- 2HR.2 Increases in College Use of Vaping and Chemical Exposure.** HUNTER WELCH, Whitney Spaeth, Genny Carrillo, 1:00 Maria King, *Texas A&M University*
- 2HR.3 Evaluating Inflammatory Responses in in vitro Submerged Exposure to Aerosols.** SEONGBIN JO, Liang-Hsin 1:00 Chen, Shuichi Takayama, Nga Lee Ng, *Georgia Institute of Technology*
- 2HR.4 Particulate Matter Exposure and Alzheimer's Disease: In Vivo Insights into Neurotoxic Mechanisms.** JOSEPH 1:00 V. PUTHUSSERY, Yuezhi (August) Li, Shu-Wen You, Clare Wallace, Jessica Restivo, Carla M. Yuede, Rajan K. Chakrabarty, John Cirrito, *Washington University in St. Louis*
- 2HR.5 High-resolution and High-throughput Toxicity Assessment of Ambient PM<sub>2.5</sub> with a Microfluidic Cell Assay.** 1:00 ANNA KAEHR, Guillaume Aubry, Fobang Liu, Seongbin Jo, Hang Lu, Nga Lee Ng, *Georgia Institute of Technology*
- 2HR.6 Pyrazines in Waterpipe Tobacco Smoke.** Austin Pronk, CINDY HAUSER, *Davidson College* 1:00

- 2HR.7 Formation of Free Radical Oxidants in the Aerosols Produced from Vaping Different Nicotine Salts in Electronic (e-) Cigarettes.** 1:00 NICHOLAS ROBERTSON, Lillian Tran, Guodong Rao, Haylee Hunsaker, Elizabeth Chiu, Brett Poulin, Amy Madl, Kent Pinkerton, R. David Britt, Tran Nguyen, *University of California, Davis*
- 2HR.8 Characterization of the Aerosol Yield and Toxic Emissions Profile from the Addition of Terpene Flavorants when Vaping Delta-8 and Delta-10 Tetrahydrocannabinol (THC) Distillate on a Cannabis Vaping Device.** 1:00 HAYLEE HUNSAKER, Elizabeth Chiu, Nicholas Robertson, Tran Nguyen, *University of California, Davis*
- 2HR.9 RH-dependent Phase Transitions and Other Physicochemical Properties of Respiratory Aerosols via Fluorescence Probe Spectroscopy.** 1:00 ANGEL GIBBONS, Paul Ohno, *Auburn University*
- 2HR.10 Optical-based Measurement of Protection Factors for Powered Air-Purifying Respirators.** 1:00 XINYI NIU, Chandrashekhar Choudhary, Michael Yermakov, Tao Li, Sergey A. Grinshpun, Jun Wang, *University of Cincinnati*
- 2HR.11 Dust Under the Radar: Rethinking How to Evaluate the Impact of Dust Events on Air Quality in the United States.** 1:00 KARIN ARDON-DRYER, Jenny Hand, Katherine Clifford, *Department of Geosciences, Texas Tech University*
- 2HR.12 Characterization of Sources and Sinks of the Oxidative Potential of Particulate Matter Emitted from Household Sources.** 1:00 P. S. GANESH SUBRAMANIAN, Brent Stephens, Mohammad Heidarnejad, Vishal Verma, *University of Illinois Urbana-Champaign*
- 2HR.13 Exposure to Black Carbon (BC) and Secondary Aerosol (p-SO42- and p-NO3-) Components of PM2.5, and Cardiopulmonary Morbidity in Jeddah, Saudi Arabia.** 1:00 HAIDER KHWAJA, Shedrack Nayebare, Omar Aburizaiza, Azhar Siddique, David Carpenter, Mirza M. Hussain, Jahan Zeb, Abdullah Aburiziza, *University at Albany*
- 2HR.14 Point-of-Care Detection of Airborne Respiratory Viruses.** 1:00 AMIN SHIRKHANI, Morteza Alipanah, Matthew D. Jansen, William B. Vass, Sripriya Nannu Shankar, Carlos Manzanos, Mohammad Washeem, Z. Hugh Fan, John Lednicky, Chang-Yu Wu, *University of Miami*
- 2HR.15 Simulations of Highly Concentrated Droplet Transport and Deposition in an Idealized Mouth-Throat Airway Model.** 1:00 Yu Liu, XIAOLE CHEN, *Nanjing Normal University*
- 2HR.17 Determining Medical Nebulizer's Droplet Size Distribution with a Low-Cost Refrigeration System.** 1:00 Taewon Han, Michael Falvo, GEDIMINAS MAINELIS, *Rutgers, The State University of New Jersey*
- 2HR.18 Transmission of Aerosol through Micro-Channel Flow.** 1:00 PHILIP JONES, Samuel Durbin, Adrian Perales, *Sandia National Labs*
- 2HR.19 Understanding the Relationship between Oxidative Potential and Individual Particulate Organic Components in a Residential City of South Korea.** 1:00 SUNG-WON PARK, Ji-Won Jeon, Pyung-rae Kim, Hyo-Won Lee, Soo-Jin Jeong, Yun-seo Lee, Young-Ji Han, *Kangwon National University*
- 2HR.20 Exposure Studies of Living Organisms: How the PolluRisk Platform is Simulating at the Laboratory Urban Air Quality and Its Health Impacts.** 1:00 PATRICE COLL, Mathieu Cazaunau, Ambre Delater, Juan Camilo Macias Rodriguez, Lucy Gerard, Aline Gratien, Spyros N. Pandis, Sophie Lanone, The PolluRisk Team, *LISA UMR CNRS 7583, France*

21A INDOOR AEROSOLS II  
HALL 3

- 21A.2 The Chemical Transformation and Related Cytotoxicity of Vaping Emissions under the Indoor Atmospheric Aging Process.** 1:00 LINHUI TIAN, Wonsik Woo, Ying-Hsuan Lin, *University of California, Riverside*

- 2IA.3 Assessing Secondhand Cannabis Exposure at a Cannabis Consumption Lounge.** Muchuan Niu, Yuan Yao, Haoxuan Chen, YIFANG ZHU, *University of California, Los Angeles*  
1:00
- 2IA.4 Prescribed Burning Emissions: Impacts on Nearby Residents.** SEAN BENJAMIN, Michael Hannigan, Colleen Reid, Katherine Dickinson, Hannah Brenkert-Smith, Carla Nyquist, Malena Toups, Evan Coffey, *University of Colorado at Boulder*  
1:00
- 2IA.5 Limonene Emission Dynamics of Personal Care Products from Different Surface Materials.** AVISA CHARMCHI, Pascale Lakey, Manabu Shiraiwa, Celia Faiola, *University of California, Irvine*  
1:00
- 2IA.6 Understanding Contaminant Transmission in Indoor Spaces Considering Real-World Operating Conditions.** ROY KING, Chethani Athukorala, Suresh Dhaniyala, *Clarkson University*  
1:00
- 2IA.7 Modeling SOA Formation in Indoor Environments: Impact of Lamps, NO<sub>2</sub>, Ozone, and Wet Inorganic Seed.** Spencer Blau, MYOSEON JANG, *University of Florida*  
1:00
- 2IA.8 Indoor Dynamics of Ionic PFAS: Results from the IPA Campaign.** Naomi Chang, Clara Eichler, Daniel Amparo, Elaine Cohen Hubal, Jason Surratt, Glenn Morrison, BARBARA TURPIN, *UNC-Chapel Hill*  
1:00
- 2IA.9 Effect of Poor Outdoor Air Quality and HVAC Settings on Indoor Air Quality on the University of Utah Campus.** TRISTALEE MANGIN, Kerry Kelly, Darrah Sleeth, Dillon Tang, Zachary Palmer, Zachary Barrett, Sean Nielson, *University of Utah*  
1:00
- 2IA.10 Real-Time Detection of Narcotics and Explosives Using Single-Particle Mass Spectrometry.** JOHANNES PASSIG, Marco Schmidt, Haseeb Hakkim, Aleksandrs Kalamasnikovs, Petra Hehet, Ellen Iva Rosewig, Guanzhong Wang, Heinrich Ruser, Michael Pütz, Martin Seipenbusch, Simone Vinati, Karsten Wegner, Thorsten Streibel, Robert Irsig, Andreas Walte, Sven Ehlert, Ralf Zimmermann, *Mass Spectrometry Centre;Rostock University/Helmholtz Munich*  
1:00
- 2IA.11 Unveiling the Hidden: Affordable Particles Plus Water-based CPC Explores Ultrafine Particles in Office Buildings with Central HEPA Filtration.** ANIL NAMDEO, Adam Giandomenico, *Northumbria University and Particles Plus Inc.*  
1:00
- 2IA.13 Effects of Germicidal Far-UVC on Indoor Air Quality in an Office Setting.** ZIFENG TANG, Farideh Hosseini Narouei, Shiqi Ian Wang, Raabia Hashmi, Sandhya Sethuraman, David Welch, David Brenner, V. Faye McNeill, *Columbia University*  
1:00
- 2IA.14 Investigating the Transport of Fine Particulate Matter from a Point-Source in a Multi-Story House with Different Modeling Approaches.** Andrew Martin, Stephen Zimmerman, Liora Mael, Dustin Poppendieck, Delphine K. Farmer, MARINA VANCE, *University of Colorado Boulder*  
1:00
- 2IA.15 3D Printed Microscale Cyclones Enabling High-Efficiency Collection, Separation, and Recovery of Sub-Micrometer Aerosol Particles.** PROMA BHATTACHARYA, Dewansh Rastogi, Sima Mehraji, Akua Asa-Awuku, Don L. DeVoe, *University of Maryland*  
1:00
- 2IA.16 Particulate Air Pollution from Secondhand Cannabis Smoke in Public Venues.** XIAOCHEN TANG, Abel Huang, Morgan Murphy, Marion Russell, Suzaynn Schick, Hugo Destaillets, *Lawrence Berkeley National Laboratory*  
1:00

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2IM INSTRUMENTATION AND METHODS VII: CHEMISTRY, OPTICS AND PHYSICS

HALL 3

- 2IM.1 Using Machine Learning Models to Enhance Chemical Characterization from TOF-ACSM Mass Spectra.** NA MAO, Manjula Canagaratna, Nga Lee Ng, Satoshi Takahama, Ann M. Dillner, *University of California, Davis*  
1:00

- 2IM.2 Improvements in Portable Gas Chromatography–Mass Spectrometry for Volatile Organic Compounds Detection.** SABIN KASPAROGLU, Anthony S. Wexler, *University of California, Davis*  
1:00
- 2IM.3 Analytical Method for Quantification of Airborne Respirable Crystalline Silica Using Raman Spectroscopy.** VASILEIA VOGIAZI, Chen Wang, Pramod Kulkarni, *Centers for Disease Control and Prevention, NIOSH*  
1:00
- 2IM.4 A Data Analysis Pipeline for Identification of Untargeted GC–EI–MS Spectra.** DEBORAH F. MCGLYNN, Lindsay Yee, Lewis Geer, Yuri Mirokhin, Dmitrii Tchekhovskoi, Coty Jen, Allen Goldstein, Anthony J. Kearsley, Stephen E. Stein, *National Institute of Standards and Technology*  
1:00
- 2IM.5 Characterizing Metal Particles Emitted from Aircraft Engines.** BENJAMIN A. NAULT, Peter F. DeCarlo, Richard Miale–Lye, Edward Fortner, Richard Moore, Steven Baughcum, *Johns Hopkins University*  
1:00
- 2IM.6 Exposure to Crystalline Silica Nanoparticles during Fabrication of Natural and Engineered Stones.** KABIR RISHI, Bon Ki Ku, Jianqi Wang, Chen Wang, Alan Dozier, Vasileia Vogiaz, Orthodoxia Zervaki, Pramod Kulkarni, *Centers for Disease Control and Prevention, NIOSH*  
1:00
- 2IM.7 Organic Nitrogen Ions in Aerosol Mass Spectrometry and Implications for Source Apportionment and Understanding SOA Chemical Processing.** JUSTIN TROUSDELL, Christopher Niedek, Weiqi Xu, Yele Sun, Xinlei Ge, Qi Zhang, *University of California, Davis*  
1:00
- 2IM.8 Chemical Characterization of Aerosol Droplets via Droplet Assisted Ionization Mass Spectrometry.** JOSHUA HARRISON, Thomas Hilditch, Kelvin Risby, Jim Walker, Bryan R. Bzdek, *University of Bristol*  
1:00
- 2IM.9 Design and Development of a Field–Portable Tandem Raman and Elemental Aerosol Spectrometer (TREAS) for Near Real–time Aerosol Measurement.** Nicholas Pugh, ORTHODOXIA ZERVAKI, Kabir Rishi, Pramod Kulkarni, *Centers for Disease Control and Prevention, NIOSH*  
1:00
- 2IM.10 Quantifying the Contributions from Multiply Charged Particles to Improve Calibration Procedures for the ACSM.** Ernie R. Lewis, Arthur J. Sedlacek, Ogochukwu Enekwizu, Maria Zawadowicz, AMIE DOBRACKI, *Brookhaven National Laboratory*  
1:00
- 2IM.11 Monitoring and Diagnostic Tools for Aerosol Beams from Different Aerodynamic Lenses.** DONGWOOK KIM, Pedro Campuzano–Jost, Hongyu Guo, Leah Williams, Philip Croteau, John Jayne, Douglas Worsnop, Jose–Luis Jimenez, *University of Colorado, Boulder*  
1:00
- 2IM.12 Contrasting the Composition of Urban and Remote Fine Aerosols Using Single Particle Inductively Coupled Plasma Time–of–Flight Mass Spectrometry.** PATRICK HAYES, Kevin Wilkinson, James King, Yannick Tardif, Léa Richard, Daniel Bellamy, Alisée Dourlent, Nicole Trieu, Katia Iatariene, Houssame–Eddine Ahabchane, *Université de Montreal*  
1:00
- 2IM.13 Enhancing the Measurement Accuracy of Integrated Photoacoustic Nephelometers to Better Characterize Infrared Optical Properties of Stratospheric Aerosol Injection Candidates.** PRABHAV UPADHYAY, Taveen Kapoor, Benjamin Sumlin, Rajan K. Chakrabarty, *Washington University in St. Louis*  
1:00
- 2IM.14 Near–UV (365 and 405 nm) CAPS PMSSA Monitors for the In Situ Measurement of Particle Optical Properties.** ZACHARY PAYNE, Benjamin Moul, Stephen Jones, Andrew Freedman, Timothy Onasch, *Aerodyne Research, Inc.*  
1:00
- 2IM.15 Near–UV CAPS PMSSA Monitors for the In Situ Measurement of Particle Optical Properties.** Zachary Payne, Benjamin Moul, Stephen Jones, Andrew Freedman, TIMOTHY ONASCH, *Aerodyne Research, Inc.*  
1:00
- 2IM.16 SMPS and DMA Calibration with Size–Certified Silver Aerosols from the Silver Particle Generator (SPG).** Tobias Hammer, MOHSEN KAZEMIMANESH, Hans–Joachim Schulz, Konstantina Vasilatou, *National Physical Laboratory*  
1:00



**2IM.18 An Aerosol Spectrometer Combination for Measurement across the Sub- and Super-Micrometer Regime.**

1:00 JUSTIN HAMLIN, Raymond Leibensperger III, Jena Herbst, Meinrat O. Andreae, Kimberly Prather, *University of California, San Diego*

**2IM.19 Improving PurpleAir PM2.5 Sensor Accuracy in Cold Conditions: Developing Tailored Correction Factors.**

1:00 JENNO JOSEPH-LEENOSE-HELEN, Srijan Aggarwal, Raghu Betha, Dominique Pride, Alana Vilagi, *University of Alaska - Fairbanks*

**2IM.20 Evaluating Air Quality Using Low-Cost Sensor and Satellite Data at Schools in a Semi-rural US-Mexico Border**

1:00 **Region Area of South Texas, USA.** KABIR BAHADUR SHAH, Sai Deepak Pinakana, Amit U. Raysoni, *The University of Texas Rio Grande Valley*

**2IM.21 Instrumentation Shortcomings in Asthma Studies: Implications for Accurate Particle Measurement and**

1:00 **Health Outcomes.** DAVID WOOLSEY, Mohammadreza Khani, *AirSpeQ*

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2NP NANOPARTICLES AND MATERIALS SYNTHESIS II

HALL 3

**2NP.1 From Nucleation to Aerogels: The Evolution of Structure in CNT Aerosols Reactors and Methane Pyrolysis.**

1:00 ADAM M BOIES, Jack Peden, Shahzad Hussain, Mabel Qiao, Joe Stallard, Michael Glerum, Xiaoyu Qiu, *University of Cambridge*

**2NP.2 Characterization of Plasma-Activated Fine Water Droplets Generated by Electrostatic Atomization Device.**

1:00 RYO SHIBUI, Tatsuo Ishijima, Tomoya Tamadate, Yohei Ishigami, Yusuke Kuromiya, Toshiaki Sakai, Hiroshi Suda, Takafumi Seto, *Kanazawa University*

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2PA PLANETARY AEROSOLS: FROM EARTH TO EXOPLANETS II

HALL 3

**2PA.1 Advance Aerosol Separator for Planetary Exploration.** PAUL CARPENTER, Dragan Nikolic, David Keicher,

1:00 *Integrated Deposition Solutions Inc. (IDS)*

**2PA.2 Synthesis of Diglycine in Single Suspended Micron-sized Aerosol Droplets.** ALEXANDER LOGOZZO, Thomas

1:00 Preston, *McGill University*

**2PA.4 Early Earth Organic Haze as a Global Prebiotic Chemistry Source.** NATHAN REED, Karyn Rogers, Eleanor Browne,

1:00 Margaret Tolbert, Boswell Wing, Shawn McGlynn, *Rensselaer Polytechnic Institute*

**2PA.6 Photochemical Production of Organic Haze from Inorganic Gases.** HANA LEI LEWINE, Nathan Reed, Zachary

1:00 Schiffman, Jeffrey Price, Margaret Tolbert, Eleanor Browne, *University of Colorado Boulder & CIRES*

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2UA URBAN AEROSOLS III: FIELD AND LAB MEASUREMENTS AND MODELING

HALL 3

**2UA.1 New Particle Formation Events in Urban, Agricultural, and Arctic Environments.** Haebum Lee, Hyungjin Cho,

1:00 Young Jun Yoon, Joonwoo Kim, Bang Yong Lee, KIHONG PARK, *Gwangju Institute of Science and Technology*

**2UA.2 The Role of Oxidized Organic Compounds in Urban New Particle Formation.** LEE TISZENKEL, James Flynn,

1:00 Shanhu Lee, *The University of Alabama in Huntsville*

**2UA.3 Exploring the Mechanisms of New Particle Formation in Houston with an Outdoor Chamber.** JEREMY WAKEEN,

1:00 Xuanlin Du, Samuel O'Donnell, Don Collins, Jeffrey R. Pierce, James Smith, *University of California, Irvine*

- 2UA.4 Investigating Contributors to Nanoparticle Growth Using an Ambient Air-Tracking Chamber.** XUANLIN DU, 1:00 Jeremy Wakeen, Samuel O'Donnell, Jeffrey R. Pierce, James Smith, Don Collins, *University of California, Riverside*
- 2UA.5 Anthropogenic Monoterpenes and Monoterpenoids as Important Precursors for Secondary Organic Aerosol in US Cities.** MASOUD AKBARZADEH, Huiying Luo, Abraham Dearden, Alison Piasecki, Ann M. Middlebrook, Lauren A. Garofalo, Delphine K. Farmer, Matthew Coggon, Cort Zang, Karl Seltzer, Benjamin Murphy, Havalá Pye, Katelyn Rediger, Carsten Warneke, Damien Ketcherside, Lu Hu, Tucker Melles, Audrey Lawrence, Megan Willis, Shantanu Jathar, *Colorado State University*
- 2UA.6 Investigating Thermal-stress Response in Common Landscaping Plant to Elucidate Changes in Urban Forest BVOC Emissions as a Result of Climate Change.** JASMINE OSEI-ENIN, Juan Flores, Celia Faiola, *University of California, Irvine*
- 2UA.7 Analysis of Particulate Matter Fraction in an Urban Area, Brazil.** RAFAELA SQUIZZATO, Thiago Nogueira, Caroline Fernanda Hei Wikuats, Maria de Fatima Andrade, Edmilson Dias de Freitas, *University of São Paulo*
- 2UA.8 Impact of Urban Form on pm<sub>2.5</sub> Concentration in Indian Metropolitan Cities.** HIMANK SEN, Lovleen Gupta, *Delhi Technological University*
- 2UA.9 Quantifying HAPs from Tier II and Tier III OGVs.** KYAH GRACIA, *University of California, Riverside*  
1:00
- 2UA.10 Modeling the BC and PM<sub>2.5</sub> Emissions Changes and Exposure Impacts of Medium- and Heavy-Duty Truck Modernization and Decarbonization.** JAMES D.A. BUTLER, Chelsea V. Preble, Fona Ou, Wanshi Hong, Bin Wang, Alan Jenn, Thomas W. Kirchstetter, Ling Jin, *University of California, Berkeley*
- 2UA.11 A Decade of On-Road Heavy-Duty Diesel Truck Emission Control Performance Characterization during California's Fleet Modernization.** CHELSEA V. PREBLE, Robert Harley, Thomas W. Kirchstetter, *University of California, Berkeley*
- 2UA.12 Primary and Secondary Emissions from a Modern Fleet of City Buses.** LIYUAN ZHOU, Qianyun Liu, Christian M. Salvador, Michael Le Breton, Mattias Hallquist, Jian Zhen Yu, Chak K. Chan, Åsa M. Hallquist, *King Abdullah University of Science and Technology*
- 2UA.13 Mapping the Spatial Distribution of 2.5 to 10 nm and Total Particle Concentrations on Highways, Secondary, and Tertiary Roads.** JONAH HAZELWOOD, Lintong Cai, Stephanie Bachman, Nicholas Meskhidze, Markus Petters, *North Carolina State University*
- 2UA.14 Secondary Organic Aerosol Formation from Tire Emissions in an Oxidation Flow Reactor.** MINGHAO HAN, Don Collins, *University of California, Riverside*
- 2UA.15 Diel Formation and Oxidative Aging of Secondary Organic Aerosol Generated from Phenol Using a Combined Smog Chamber and Oxidation Flow Reactor Approach.** DAVID PANDO, Bin Bai, Chase Glenn, Andrew Lambe, Pengfei Liu, Nga Lee Ng, *Georgia Institute of Technology*
- 2UA.16 Direct Observation of Wintertime Secondary Formation of Sulfate in Ambient Aerosols in Fairbanks, Alaska.** 1:00 JINGQIU MAO, Kunal Bali, James Campbell, Ellis Robinson, Peter F. DeCarlo, Amna Ljaz, Brice Temime-Roussel, Barbara D'Anna, William Simpson, Athanasios Nenes, Rodney J. Weber, *University of Alaska Fairbanks*
- 2UA.17 Impact of Fixed Sources on Urban Aerosol Formation in Sao Paulo State, Brazil.** IARA DA SILVA, Caroline Fernanda Hei Wikuats, Tailine Corrêa dos Santos, Leila Droprinchinski Martins, Edmilson Dias de Freitas, *University of São Paulo*



**2UA.18 Two-stage Secondary Organic Aerosol Formation in Low-temperature Combustion.** ANITA ANOSIKE, Omar El Hajj, Chase Glenn, Samuel Hartness, Annabelle W. Hill, Nicholas Dewey, Daelyn Moore, Heeseung Choi, Jonathan Amster, Brandon Rotavera, Rawad Saleh, *University of Georgia*

**2UA.19 Associating Traffic Related Aerosol in the Near-Road Environment to Urban Characteristics.** RICARDO MORALES BETANCOURT, Daniela Mendez, Diego Roberto Rojas-Neisa, Luis Angel Guzman, *Universidad de los Andes*

**Tuesday 3:00 PM – 3:30 PM**  
**Coffee Break**

**Tuesday 3:30 PM – 5:00 PM**  
**Session 3: Platform**

3AC AEROSOL CHEMISTRY II: AEROSOL PHYSICAL AND CHEMICAL PROPERTIES  
*BALLROOM B/C* – Alla Zelenyuk and Erik Helstrom, chairs

**3AC.1 A Comparative Study on the Evaporation Kinetics and Physical Properties of Acyclic and Cyclic Terpene SOA.**  
3:30 SIJIA LIU, Claire E. Moffett, Gregory W. Vandergrift, Zezhen Cheng, Swarup China, Sergey Nizkorodov, Alla Zelenyuk, Celia Faiola, *University of California, Irvine*

**3AC.2 The Influence of Internal Mixing of Organic Acids and Sea Salt on Size-Resolved Aerosol Refractive Index and Hygroscopicity.** MIGUEL HILARIO, Eva-Lou Edwards, Cassidy Soloff, Kayla Preisler, Armin Sorooshian, *University of Arizona*

**3AC.3 Seasonal Dependence of Particle Number and Mass Production Efficiencies of Marine Aerosol Generated from Sargasso Seawater.** AMANDA FROSSARD, Tret Burdette, Rachel Bramblett, William Keene, John Maben, Joanna Kinsey, David Kieber, Steven Beaupre, *University of Georgia*

**3AC.4 Connecting the Physicochemical Properties with Cloud Condensation and Ice Nucleation Activities of Secondary Organic Aerosol (SOA) Formed through Multiphase Chemical Reactions.** SINING NIU, Janie (Yeaseul) Kim, Christopher Rapp, Miska Olin, Zezhen Cheng, Xiaoli Shen, Gregory W. Vandergrift, Yuzhi Chen, Claire E. Moffett, Gourihar Kulkarni, Alla Zelenyuk, Swarup China, Jason Surratt, Daniel Cziczo, Yue Zhang, *Texas A&M University*

**3AC.5 Parameterization of the Separation Relative Humidity in Submicron Aerosol Particles.** MIRIAM FREEDMAN,  
4:30 Qishen Huang, Kiran Reddy Pitta, *The Pennsylvania State University*

**3AC.6 Exploring the Temperature- and Humidity-Dependent Viscous Properties of Organic and Mixed Organic-Inorganic Aerosol Particles: Impacts on Water Diffusion and Interpreting Chamber Studies.** RYAN D. DAVIS, Kyle McMillan, Christian Pattyn, Teresa Palacios Diaz, Katie Morton, Craig Sheldon, Samantha Kruse, Kyuhaeng Lee, Nicole Riemer, Matthew West, Cara Waters, Ali Alotbi, Katherine Kolozsvari, Andrew Ault, Jake Zenker, Lekha Patel, James F. Davies, *Sandia National Laboratories*

3AP AEROSOL PHYSICS II: TRANSPORT PHENOMENA  
*SAN MIGUEL* – Carlos Larriba-Andaluz and Ren Garity, chairs

**3AP.1 Quantification of Face Seal Leakage Using Parallel Resistance Model.** Buddhi Pushpawela, PETER CHEA, Ryan X. Ward, Richard Flagan, *California Institute of Technology*

**3AP.2 Effect of Lagrangian Time Scales and Reynolds Number on the Prediction of Droplet Penetration through Vertically Oriented Turbulent Pipe Flows.** ZACHARY MILANI, Edgar Matida, Leonid Nichman, R. Timothy Patterson, *Carleton University*

**3AP.3 Diffusivity of Small (< 10 nm) Nanoparticles in Air by Fully Atomistic Molecular Dynamics.** Katerina Karadima, 4:00 Dimitrios Tsalikis, Vlasios Mavrantzas, SOTIRIS E. PRATSINIS, *ETH Zurich, Switzerland*

**3AP.4 Implementing Aerosol Coagulation in the QUIC-Fire/QUIC-Smoke Model.** HANNAH BRINK, Sara Brambilla, 4:15 Matthew Nelson, Kyle Gorkowski, Liam Wedell, Diego Rojas Blanco, Katherine Benedict, *Los Alamos National Laboratory*

**3AP.5 Review of Aerosol Forces Under Nonstandard Conditions: Modeling and Applications.** REN GARITY, James 4:30 Henry, Andrew Metcalf, John Saylor, Sarah Suffield, *Clemson University*

**3AP.6 Exploring the Effects of Inelastic Collisions and Ion-Gas Energy Exchange on Electrical Mobility.** CARLOS 4:45 LARRIBA-ANDALUZ, Viraj Gandhi, *IUPUI*

### 3BA BIOAEROSOLS I

LA CIENEGA – Marina Nieto-Caballero and Michaela Rogers, chairs

**3BA.1 Molecular-based Comparison of Bioaerosol Sampling Instruments.** NOHHYEON KWAK, Mohammad Washeem, 3:30 Yang Wang, Chang-Yu Wu, Jiayu Li, *University of Miami*

**3BA.2 Association between In Situ Ventilation and Human-Generated Aerosol Exposure in Meatpacking Plants during the COVID-19 Pandemic.** JOSHUA L. SANTARPIA, Josephine Lau, Debayan Shom, Shanna A. Ratnesar-Shumate, Eric Carnes, George Santarpia, Vicki Herrera, Danielle N. Rivera, Daniel N. Ackerman, Ashley R. Ravnholdt, John Lowe, Athena Ramos, *University of Nebraska Medical Center*

**3BA.3 Assessing the Infectious Potential of Accidentally Produced Aerosols in Biological Laboratories.** ASHLEY R. 4:00 RAVNHOLDT, Danielle N. Rivera, Daniel N. Ackerman, Gabriel A. Lucero, Elizabeth A. Klug, Shanna A. Ratnesar-Shumate, Joshua L. Santarpia, *University of Nebraska Medical Center*

**3BA.4 Biological Aerosol Field Trial: Exploring a UAS Biological Collection Point Sensor and Its Interoperability with Standoff Technology.** BLAKE BECKMAN, Sylvie Buteau, Blaine Fairbrother, Amanda Weiler, Cara Bourgeois, Drew Robinson, Denis Nadeau, *DRDC Suffield Research Centre*

**3BA.5 Vertical Profiles of Fluorescent and Coarse Mode Particle Properties in the Colorado River Basin.** MARIA 4:30 ZAWADOWICZ, Chongai Kuang, Olga Mayol-Bracero, Darielle Dexheimer, Mirtha Salatti, Russell Perkins, Paul DeMott, Jessie Creamean, Zezhen Cheng, Nurun Nahar Lata, Swarup China, *Brookhaven National Laboratory*

**3BA.6 Clouds and Meteorological Effects on Bioaerosol Particles: Insights From the Eastern Pacific Cloud Aerosol Precipitation Experiment (ECAPE).** Abu Sayeed Md Shawon, KATHERINE BENEDICT, Kyle Gorkowski, Ryan Farley, 4:45 Nevil Franco, James E. Lee, Manvendra Dubey, Lynn M. Russell, Allison Aiken, *Los Alamos National Laboratory*

3CT COAST TO COAST CAMPAIGNS ON AEROSOLS, CLOUDS, CHEMISTRY, AND AIR QUALITY II: URBAN AND DOWNWIND OBSERVATIONS OF AEROSOL SOURCES AND PROCESSES DURING AGES+ ON THE U.S. EAST COAST  
MESILLA – Drew Gentner and Ann Dillner, chairs

**3CT.1 The 2023 NOAA Atmospheric Emissions and Reactions Observed from Megacities to Marine Areas (AEROMMA) Project: Overview and Selected Preliminary Results.** Patrick Veres, Andrew Rollins, Carsten 3:30 Warneke, Rebecca Schwantes, Brian McDonald, ANN M. MIDDLEBROOK, The AEROMMA Team, *NOAA Chemical Sciences Laboratory*. INVITED.

**3CT.2 A Pseudo-Lagrangian Perspective on New Particle Formation and Growth Observed in Urban Outflow Plumes during AEROMMA.** EN LI, Charles Brock, Andrew Rollins, The AEROMMA Team, Shantanu Jathar, Jeffrey R. Pierce, 3:45 *Colorado State University*

**3CT.3 Evaluation of In-Situ Aerosol Composition and Optical Properties Measurements from the 2023 AEROMMA Airborne Field Mission to Validate and Improve Satellite Data Products.** HAN N. HUYNH, Adam Ahern, Ming Lyu, Charles Brock, Xiaoli Shen, Justin Jacquot, Daniel Cziczo, Alison Piasecki, Ann M. Middlebrook, Caroline Womack, Georgia Michailoudi, Joshua P. Schwarz, Daniel Murphy, *CU-CIRES/NOAA CSL*

**3CT.4 PM1 Liquid Water and pH Determined with a Thermodynamic Model for the AEROMMA Field Campaign.** 4:15 MAGESH KUMARAN MOHAN, Alison Piasecki, Ann M. Middlebrook, Amy P. Sullivan, Emily Lill, Ilana Pollack, Stelios Kakavas, Spyros N. Pandis, Athanasios Nenes, Rodney J. Weber, *Georgia Institute of Technology*

**3CT.5 Estimating Surface PM2.5 Concentrations and Chemical Composition from High Spectral Resolution Lidar Retrievals Using the HSRL-CH Methodology.** 4:30 Bethany Sutherland, NICHOLAS MESKHIDZE, *North Carolina State University*

**3CT.6 Altitudinal Gradient in Aging and Mixing State of Transported Saharan Dust in the Tropical North Atlantic Marine Boundary Layer: Insights from the MAGPIE Campaign.** 4:45 SUJAN SHRESTHA, Hope Elliott, Nurun Nahar Lata, Zezhen Cheng, Swarup China, Edmund Blades, Devon Blades, Alyson Allen, Rebecca Chewitt-Lucas, Jesus Ruiz-Plancarte, Albert Ortiz, Thomas Eck, Pawan Gupta, Elena Lind, Willem Marais, Robert Holz, Jeffrey Reid, Andrew Ault, Cassandra Gaston, *University of Miami*

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3IA INDOOR AEROSOLS II: DISTRIBUTION AND DISPERSION OF INDOOR AEROSOLS  
*RUIDOSO/PECOS* – Jonathan Symonds and Donghyun Rim, chairs

**3IA.1 Indoor Organic Aerosol Formation Near Occupants in an Occupied Classroom Using Computational Fluid Dynamics Simulations.** 3:30 SUWHAN YEE, Donghyun Rim, *Pennsylvania State University*

**3IA.2 Rapid Aerosol Infection Risk Prediction for a Classroom Using Computational Fluid Dynamics Simulation Coupled with Data-driven Machine Learning.** 3:45 HYEONJUN LEE, Donghyun Rim, *Pennsylvania State University*

**3IA.3 Multi-Zonal Modeling in a Residential Apartment Using Physics Informed Long Short-Term Memory Approach.** 4:00 ALOK KUMAR THAKUR, Sameer Patel, *Indian Institute of Technology Gandhinagar*

**3IA.4 A New Methodology for Indoor PM2.5 Source Apportionment.** 4:15 Shiva Nourani, HECTOR JORQUERA, *Pontificia Universidad Catolica de Chile*

**3IA.5 Reducing Infectious Disease Transmission in Operating Rooms.** 4:30 Reza Daneshazarian, JEFFREY SIEGEL, *University of Toronto*

**3IA.6 An Aerosol Flame Photometer to Study Indoor Aerosol Dispersion.** 4:45 JONATHAN SYMONDS, Julie Pongetti, Kristian Hoffman, Chris Nickolaus, *Cambustion Ltd*

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3IM INSTRUMENTATION AND METHODS II: CHEMISTRY  
*BALLROOM A* – Maria Zawadowicz and Ryan Poland, chairs

**3IM.1 Measuring Surface Tension of Single Aerosol Particles Using Electrodeformation.** 3:30 THOMAS PRESTON, *McGill University*

**3IM.2 Characterizing the Influence of Particle Coating and Volatility on the Differential Loading Compensation Parameter from a DualSpot® Aethalometer.** 3:45 RYAN POLAND, John Allen, Zachary McQueen, Rawad Saleh, Geoffrey Smith, *University of Georgia*

**3IM.3 Carbon Quantum Dots for Direct Measurement of the pH of Aerosol Particles.** 4:00 KOMAL JASWAL, Victoria Adekunle, Miriam Freedman, *The Pennsylvania State University*

**3IM.4 Coupling of Photoionization Mass Spectrometry to Thermal Optical Carbon Analysis (EC/OC-Measurement) for Rapid PM-Characterization.** Hendryk Czech, Patrick Martens, Paul Kösling, Marco Schmidt, Christopher Rüger, Thorsten Streibel, Sven Ehlert, Andreas Walte, Martin Rigler, Johannes Passig, RALF ZIMMERMANN, *Mass Spectrometry Centre;Rostock University/Helmholtz Munich*

**3IM.5 Rapid and Sensitive Chemical Analysis of Individual Picolitre Droplets by Mass Spectrometry.** JIM WALKER, 4:30 Bryan R. Bzdek, *University of Bristol*

**3IM.6 A New Spin on Colorimetric Measurement of Aerosol pH Using Aerosol Water Uptake.** CARA WATERS, Ali Alotbi, 4:45 Katherine Kolozsvari, Andrew Ault, *University of Michigan*

**Tuesday 5:00 PM – 6:00 PM**  
**Working Group Meetings I: Aerosol Chemistry (Ballroom A)**

**Tuesday 5:00 PM – 6:00 PM**  
**Working Group Meetings I: Combustion and Materials Synthesis (Mesilla)**

**Tuesday 5:00 PM – 6:00 PM**  
**Working Group Meetings I: Health Related Aerosols (San Miguel)**

**Tuesday 5:00 PM – 6:00 PM**  
**Working Group Meetings I: History of Aerosol Science (La Cienega)**

**Tuesday 5:00 PM – 6:00 PM**  
**Working Group Meetings I: Instrumentation and Methods (Ruidoso/Pecos)**

**Tuesday 6:00 PM – 8:00 PM**  
**Welcome Reception**

**Tuesday 6:00 PM – 8:00 PM**  
**Session 4: Meet the Job Seekers**

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4JS MEET THE JOB SEEKERS

HALL 3

**4JS.1 Nahin Ferdousi-Rokib, PhD Candidate in Chemical Engineering, University of Maryland College Park, Seeking Industry/ Postdoctoral Positions.** NAHIN FERDOUSI, *University of Maryland, College Park*

**4JS.2 Raymond J. Leibensperger III, 4th Year PhD Candidate, Seeking National Lab Postdoctoral Position.** RAYMOND LEIBENSPERGER III, *University of California, San Diego*

**4JS.3 Garima Raheja, 5th year PhD, Seeking Opportunities in Energy/Data in Government, Academia or Private Sector.** GARIMA RAHEJA, *Columbia University*

**4JS.4 Ashley R. Ravnholdt, Graduate Student, Seeking Opportunities in Government, Private Sector, & Industry Within Biodefense and Bioaerosol Science Areas.** ASHLEY R. RAVNHOLDT, *University of Nebraska Medical Center*

**4JS.5 Daniel Ackerman, Senior Scientist and PhD Student, Seeking Opportunity in Government and Biodefense Sectors.** DANIEL N. ACKERMAN, *National Strategic Research Institute*

**4JS.6 Sukriti Kapur, Ph.D. Candidate at UC Irvine, Seeking Government / Industry /National Lab Positions.** SUKRITI KAPUR, *University of California, Irvine*

**4JS.7 Elizabeth Klug, Fifth-year Ph.D. Candidate Studying Early-stage Aging of Bioaerosols, Government Sector and/or Academic Careers.** ELIZABETH A. KLUG, *University of Nebraska Medical Center (UNMC)*



**4JS.8 Joscelyne Guzman – Gonzalez, PhD candidate, Postdoc Position.** JOSCELYNE GUZMAN – GONZALEZ, *University of Texas at El Paso*

**4JS.9 Chun–Ying Chao, Current Ph.D. Candidate in Environmental Engineering at Rice University, Seeking Postdoctoral Position.** CHUN–YING CHAO, *Rice University*

**4JS.11 Kasey Edwards, Atmospheric Chemistry PhD Candidate, Research/Regulatory Positions.** KASEY EDWARDS, *University of California, Irvine*

**4JS.12 Esther Olonimoyo, Ph.D. Candidate, University of Maryland College Park, Postdoctoral/Industry Positions.** ESTHER OLONIMOYO, *University of Maryland*

**4JS.14 Sabrina Westgate, PhD Candidate at Georgia Tech, Seeking Position in Science Policy/Science Communication or Related.** SABRINA WESTGATE, *Georgia Institute of Technology*

**4JS.15 Tianchang Xu, Ph.D, Student, Industry/Government Positions.** TIANCHANG XU, *Georgia Institute of Technology*

**4JS.16 Molly Frauenheim, Recent PhD Graduate at UNC–Chapel Hill, Seeking Government/Industry/ National Lab Position.** MOLLY FRAUENHEIM, *University of North Carolina at Chapel Hill*

**4JS.17 Oladayo Oladeji, Ph.D. Candidate in Mechanical Engineering, Seeking Research Scientist Position in Air Quality and Aerosol Science.** OLADAYO OLADEJI, *Carnegie Mellon University*

### Wednesday

Wednesday 6:30 AM – 7:30 AM  
AAAR 5k(ish) Fun Run/Walk (Meet in Double Tree Lobby)

Wednesday 7:00 AM – 8:00 AM  
Committee Meetings III – Education (Navajo)

Wednesday 7:00 AM – 8:00 AM  
Committee Meetings III – Finance (Jemez)

Wednesday 7:00 AM – 8:00 AM  
Committee Meetings III – Newsletter (Nambe)

Wednesday 8:00 AM – 9:15 AM  
Plenary II

8:00 **Lundgren–Marple Lecture: Atmospheres and Aerosols of Other Worlds** James Cutts, *Jet Propulsion Laboratory*  
**Moderator** Chang–Yu Wu, *University of Miami*

9:00 **Liu and Whitby Awards Presentation, Teaching Mentoring and Training Award Presentation** Kelley Barsanti, *University of California Riverside*

Wednesday 9:00 AM – 4:00 PM  
Exhibits Open

Wednesday 9:15 AM – 9:45 AM  
Coffee Break

Wednesday 9:45 AM – 11:30 AM  
Session 5: Platform

5AC AEROSOL CHEMISTRY III: FIELD MEASUREMENTS  
*BALLROOM B/C* – Rebecca Rice and Amanda Frossard, chairs

- 5AC.1 Secondary Organic Aerosol is Formed by Unexpected Multiphase Brown Carbon Photochemistry during Winter.** 9:45 LAURA MARIE DAHLER HEINLEIN, Jonas Kuhn, Karolina Cysneiros de Carvalho, Brent Williams, Jochen Stutz, Cort Anastasio, *University of California, Davis*
- 5AC.2 Chemical Composition and Mixing State of Wintertime Aerosol from the European Arctic Site of Ny-Ålesund.** 10:00 ZHENLI LAI, Zezhen Cheng, Nurun Nahar Lata, Mauro Mazzola, Stefania Gilardoni, Swarup China, *Pacific Northwest National Laboratory*
- 5AC.3 Aerosol-Fog Interactions and Chemical Processing: Insights from the Grand Banks and Sable Island Regions during FATIMA 2022.** 10:15 TREVOR VANDENBOER, Leyla Salehpoor, Leigh Crilley, Cora Young, Gianina Giacosa, Phillipe Gauvin-Bourdon, Rachel Chang, Ed Creegan, Harindra J Fernando, *York University*
- 5AC.4 Seasonal Assessment of Secondary Organic Aerosol Formed through Aqueous Pathways in the Eastern United States.** 10:30 Ahsan Ali, Christopher Hennigan, Havala Pye, Benjamin Murphy, Prashant Shekhar, MARWA EL-SAYED, *Embry-Riddle Aeronautical University*
- 5AC.5 Assessing Atmospheric Aerosol Transport and Transformation in Central Europe: Insights from Project Trace.** 10:45 SHUBHI ARORA, Laurent Poulain, Radek Lhotka, Jakub Ondráček, Petra Pokorná, Petr Vodicka, Jaroslav Schwarz, Vladimír Ždímal, Hartmut Herrmann, *Leibniz Institute of Tropospheric Research*
- 5AC.6 Advancing Aerosol Chemical Characterization and Vertical Profiling Over the Southern Great Plains via Integrated Uncrewed Aerial Sampling and Aerosol Mass Spectrometry Analyses.** 11:00 CHRISTOPHER NIEDEK, Fan Mei, Wenqing Jiang, Justin Trousdell, Maria Zawadowicz, Beat Schmid, Qi Zhang, *University of California, Davis*
- 5AC.7 Real-time Detection of Gaseous Chlorinated Paraffins at Multiple Field Sites with Chemical Ionization Mass Spectrometry.** 11:15 DANIEL KATZ, Bri Dobson, Harald Stark, Manjula Canagaratna, Mitchell Alton, Douglas Worsnop, Eleanor Browne, *University of Colorado Boulder & CIRES*

5AP AEROSOL PHYSICS III: PHASE AND PHYSICAL CHEMISTRY  
*SAN MIGUEL* – Isabel Quant and Andi Zuend, chairs

- 5AP.1 The Drying Kinetics and Crystallization of Liquid-Liquid Phase Separated Aerosol.** 9:45 BARNABY MILES, Lukesh Mahato, Rachael E.H. Miles, Jonathan P. Reid, *University of Bristol*
- 5AP.3 Impact of Phase State on the Competition between Condensation and Coagulation.** 10:15 KIEUDIEM NGUYEN, Meredith Schervish, Manabu Shiraiwa, *University of California, Irvine*
- 5AP.4 Influence of Non-polar Amino Acids on Phase Transitions of Aerosol Particles.** 10:30 KIRAN REDDY PITTA, Miriam Freedman, *The Pennsylvania State University*
- 5AP.5 Simulating Diffusion-driven Phase Separation in Atmospheric Aerosols.** 10:45 ANDREAS ZUEND, Zixuan Shen, Ying Li, Meredith Schervish, Manabu Shiraiwa, *McGill University*
- 5AP.6 Time-Resolved Picoliter Droplet Surface Tensions over Microsecond to Millisecond Timescales.** 11:00 M. ISABEL QUANT, Alison Bain, Jim Walker, Bryan R. Bzdek, *University of Bristol*
- 5AP.7 Photochemical Aging Enhances the Viscosity of Biomass Burning Organic Aerosol.** 11:15 NEALAN GERREBOS, Sepehr Nikkho, Lyle Browning, Julia Zaks, Changda Wu, Allan K. Bertram, *University of British Columbia*

- 5BA.1 Airborne Influenza Virus Monitoring in an Elementary School Using the Growth-based Virus Aerosol Concentrator with Paper-based Sensors.** CHANHWI PARK, Junbeom Jang, Jaesung Jang, *Ulsan National Institute of Science and Technology, Korea*  
9:45
- 5BA.2 Ultra-sensitive Capacitive Biosensor for Multiplex Viruses Detection to Prevent Zoonotic Outbreaks.** JOSHIN KUMAR, Max Xu, Yuezhi (August) Li, Shu-Wen You, Joseph V. Puthusseri, Rajan K. Chakrabarty, *Washington University in St. Louis*  
10:00
- 5BA.3 Cultivation and Propagation of Viable Viral Aerosols for Upstream Amplification and Infectivity Analysis.**  
10:15 DANIEL N. ACKERMAN, Ashley R. Ravnholdt, Joshua L. Santarpia, *University of Nebraska Medical Center*
- 5BA.4 Using Viral Aerosol Fluorescence to Aid Interpretations of Virus Inactivation: Application of Wideband Integrated Bioaerosol Sensor (WIBS).** ZHENYU MA, Herek L. Clack, *University of Michigan*  
10:30
- 5BA.5 Understanding the Impact of Relative Humidity, Ozone, and Simulated Sunlight on Early Stage Aging of Infectious Bioaerosols.** ELIZABETH A. KLUG, Danielle N. Rivera, Daniel N. Ackerman, Ashley R. Ravnholdt, Kevin K. Crown, Gabriel A. Lucero, Ningjin Xu, Don Collins, Joshua L. Santarpia, *University of Nebraska Medical Center (UNMC)*  
10:45
- 5BA.6 Inactivation of Four Structurally Distinct Respiratory Viruses in Respiratory Droplets at Variable Relative Humidity.** NICOLE C. ROCKEY, *Duke University*  
11:00
- 5BA.7 Computational and Molecular Dynamics Modeling to Reduce Environmental Effects on Bioaerosols and Mitigate Disease Transmission.** Meiyi Zhang, Brooke Smith, John Cate, Stephen King, Sunil Kumar, MARIA KING, *Texas A&M University*  
11:15

5CE CHEMICALS OF EMERGING CONCERN IN AEROSOL: SOURCES, TRANSFORMATIONS, AND IMPACTS I: AEROSOLIZED NANO & MICROPLASTICS

RUIDOSO/PECOS – Elijah Schnitzler and Emily Halpern, chairs

- 5CE.1 Micro- and Nanoplastic Particles from an Atmospheric Perspective.** YUE ZHANG, Arthur W. H. Chan, Andrew Ault, Jonathan Slade, Sining Niu, Sahir Gagan, Zezhen Cheng, Alana Dodero, Ruizhe Liu, Qian Zhao, Qi Ying, Xingmao Ma, Swarup China, Manjula Canagaratna, *Texas A&M University*. INVITED.  
9:45
- 5CE.2 Nanoplastic Particle Emissions from Plastic Smoldering Combustion.** HONGRU SHEN, Arthur W. H. Chan,  
10:15 Jonathan Abbatt, *University of Toronto*
- 5CE.3 Chemical Characterization of Plastic Thermal Degradation Products Using Temperature Programmed Desorption – Direct Analysis in Real Time – High-Resolution Mass Spectrometry.** EMILY HALPERN, Peter Christ, Killian MacFeeley, Lauren Heirty, Christopher P. West, Yitao Li, Won Kim, Anthony Mennito, Alexander Laskin, *Purdue University*  
10:30
- 5CE.4 Atmospheric Microplastic Quantification with Automated Microspectroscopic Techniques.** REBECCA PARHAM,  
10:45 Abby Ayala, Lauren Meagher, Madeline Clough, Eduardo Ochoa, Jia Shi, Scarlet Aguilar-Martinez, Ambuj Tewari, Paul Zimmerman, Allison Steiner, Anne McNeil, Andrew Ault, *University of Michigan*
- 5CE.5 Probing the Processes that Govern the Direct and Indirect Climate Effects of Nanoplastics.** Katrina Betz,  
11:00 Habeeb Al-Mashala, Sithumi Liyanage, Micah Miles, Jace Barton, ELIJAH SCHNITZLER, *Oklahoma State University*
- 5CE.6 Pristine and Aged Microplastics Can Nucleate Ice through Immersion Freezing.** HEIDI L. BUSSE, Devaka Ariyasena, Jessica Orris, Miriam Freedman, *The Pennsylvania State University*  
11:15



5CT COAST TO COAST CAMPAIGNS ON AEROSOLS, CLOUDS, CHEMISTRY, AND AIR QUALITY III: AIRCRAFT-BASED AEROSOL OBSERVATIONS FROM AEROMMA AND BEYOND

MESILLA – Shantanu Jathar and Rodney Weber, chairs

**5CT.1 Longer-range Transport and Longer-term Aging of Biomass Burning Influenced Atmospheric Organic**

9:45 **Aerosol.** RACHEL O'BRIEN, Janie (Yeaseul) Kim, Corin Tyler, Emily Costa, Xu He, Yao Xiao, Andrew Ault, Manjula Canagaratna, Mitchell Alton, Benjamin A. Nault, Christopher Cappa, Cassandra Gaston, Ann M. Dillner, Haley Royer, Alyson Allen, Edmund Blades, Rebecca Chewitt-Lucas, *University of Michigan*

**5CT.2 Assessing the Accuracy and Reliability of Air Sensors for Quantifying Fine Particulate Matter during Wildfires at the Queens College ASCENT Site.**

10:00 DAVID HAGAN, Eben Cross, David McClosky, Sabrina Westgate, Roya Bahreini, Ann M. Dillner, Armistead G. Russell, Taekyu Joo, Mitchell Rogers, Tori Hass-Mitchell, Drew Gentner, Nga Lee Ng, *QuantaQ, Inc.*

**5CT.3 Chemical Characterization and Source Apportionment of Organic Aerosol in New York City Using FIGAERO-**

10:15 **CIMS and HR-ToF-AMS as Part of 2023 NYC-METS Campaign.** TIANCHANG XU, Ruizhe Liu, Yutong Liang, Taekyu Joo, Mitchell Rogers, Mitchell Alton, Anandi Williams, Jo Machesky, Mia Tran, Minguk Seo, Andrew Lambe, Drew Gentner, Nga Lee Ng, *Georgia Institute of Technology*

**5CT.4 Enhancements in Inorganic Aerosol Production in New York City and Downwind: Connecting In-Situ**

10:30 **Oxidation Experiments with ASCENT Field Observations to Examine Key Chemical and Environmental Factors.** TORI HASS-MITCHELL, Andrew Lambe, Mitchell Rogers, Taekyu Joo, Catelynn Soong, Jordan Krechmer, Benjamin A. Nault, Drew Gentner, *Yale University*

**5CT.5 Variations in Summertime Aerosol Physicochemical Mixing State Observed during NYC-METS.**

10:45 EMILY COSTA, Yao Xiao, Xu He, Corin Tyler, Kayleigh Reilly, Tiantian Zhu, Jessica Mirrielees, Drew Gentner, Rachel O'Brien, Andrew Ault, *University of Michigan*

**5CT.6 Highly-Oxidized Secondary Organic Aerosol in Coastal Communities Downwind of New York City: Influence of**

11:00 **Over-Water Production and Transport.** MITCHELL ROGERS, Anandi Williams, Keerthana Chari, Tori Hass-Mitchell, Colby Buehler, Heather LeClerc, Catelynn Soong, Anita Avery, Mitchell Alton, Jo Machesky, Taekyu Joo, Manjula Canagaratna, Andrew Lambe, Drew Gentner, *Yale University*

**5CT.7 Evaluation of CMAQ-Predicted Gas Phase Water Soluble Organic Carbon.**

11:15 ELLIE SMITH, Kirk Baker, Christopher Hennigan, Marwa El-Sayed, Annmarie Carlton, *University of California, Irvine*

5IM INSTRUMENTATION AND METHODS III: PHYSICS

BALLROOM A – Francesco Carbone and Darren Cheng, chairs

**5IM.1 Practical Considerations for Tandem Aerosol Classifier Measurements: The Effect of Scan Time, Resolution,**

9:45 **and Calibration on Effective Density Accuracy.** Morteza Kiasadegh, Timothy Sipkens, Jonathan Symonds, JASON S. OLFERT, *University of Alberta*

**5IM.2 Advancing Low-cost Air Quality Monitor Calibration with Artificial Intelligence.**

10:00 SINAN SOUSAN, Rui Wu, Ciprian Popoviciu, Sarah Fresquez, Yoo Min Park, *Department of Public Health, East Carolina University*

**5IM.3 Particles in the Upper Troposphere and Lower Stratosphere (PUTLS): Observations of Aerosol Microphysical**

10:15 **Properties.** MATTHEW BROWN, Luke Ziemba, *NASA*

**5IM.4 Integrating Data from Satellites and Low-Cost Sensors to Investigate Stubble Burning Effects on Air Quality in**

10:30 **Lower Rio Grande Valley, Texas, USA.** SAI DEEPAK PINAKANA, Amit U. Raysoni, Alqamah Sayeed, Pawan Gupta, *The University of Texas Rio Grande Valley*

**5IM.5 A Compact Aerosol Mobility Imager for Instantaneous Aerosol Size Distribution Measurements.** JIAOSHI  
10:45 ZHANG, Jing Li, Xiaoyu Chen, Steven Spielman, Susanne Hering, Jian Wang, *Washington University in St. Louis*

**5IM.6 A Semi-Analytical Model of the Scanning Transfer Function for Radial-Flow Differential Mobility Analyzers.**  
11:00 STAVROS AMANATIDIS, Yuanlong Huang, Richard Flagan, *Aerosol Dynamics Inc.*

**5IM.7 Evaluating 'Good Enough' – An introduction to US EPA Air Sensors NSIM Guidelines and Assessment of Its Utility for Research and Community Air Monitoring Applications.** EBEN CROSS, David Hagan, David McClosky, Adriana Peña, Shivang Agarwal, Kirsten Koehler, Peter F. DeCarlo, *QuantAQ, Inc.*

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5SC EXHIBITOR SHOWCASE I

HALL 3 – Amy Sullivan and Julie Stone, chairs

**5SC.1 Portable Aerosol Instrument Calibrator.** FRED BRECHTEL, Andy Corless, Xerxes Lopez-Yglesias, *Brechtel Mfg. Inc.*  
9:45

**5SC.2 Application of Thermal Desorption, Broadband Cavity Ring-Down Spectroscopy for In-Field Measurements of Speciated VOCs.** AURELIE MARCOTTE, Michael Armen, Jake Margolis, Anthony Miller, *Entanglement Technologies, Inc*  
10:30

**5SC.3 Real-time Partitioning of Organic Acids Using an Ambient Ion Monitor: Opportunities and Challenges Presented by Addition of a Mass Spectrometer.** TREVOR VANDENBOER, Mayré Rodriguez Ramirez, Eric Vanhauwaert, Jessica Clouthier, Shira Joudan, Cora Young, *York University*  
11:00

**Wednesday 11:30 AM – 1:00 PM**  
**AS&T Editorial Board Luncheon (Isleta)**

**Wednesday 11:30 AM – 1:00 PM**  
**Early Career Event (Ballroom B/C)**

**Wednesday 12:00 PM – 1:00 PM**  
**Committee Meetings IV- Development (Navajo)**

**Wednesday 12:00 PM – 1:00 PM**  
**Committee Meetings IV- Membership (Nambe)**

**Wednesday 12:00 PM – 1:00 PM**  
**Committee Meetings IV – Bylaws (Jemez)**

**Wednesday 1:00 PM – 3:00 PM**  
**Session 6: Platform**

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6AC AEROSOL CHEMISTRY IV: WILDFIRES, BIOMASS BURNING, AND BROWN CARBON  
BALLROOM B/C – Yue Zhang and Kasey Edwards, chairs

**6AC.1 Exploring the Hygroscopicity, Phase State and Morphology of Biomass-Burning and Brown Carbon Aerosol Particles.** PRAKRITI SINGH, Malsha Amugoda, James F. Davies, *University of California, Riverside*  
1:00

**6AC.2 Single-Particle Distribution and Aging of Organic Compounds in Wildfire Emissions.** Johannes Passig, Ellen Iva Rosewig, Aleksandrs Kalamasnikovs, Haseeb Hakkim, Marco Schmidt, Thomas Gröger, Mika Ihalainen, Anni Hartikainen, Markus Somero, Pasi Yli-Pirilä, Olli Sippula, Kerneels Jaars, Pieter Gideon van Zyl, Kajar Köster, Stefan Siebert, Saara Peltokorpi, Angela Buchholz, Liqing Hao, Annele Virtanen, Ville Vakkari, Andreas Walte, RALF ZIMMERMANN, *Mass Spectrometry Centre;Rostock University/Helmholtz Munich*  
1:15

- 6AC.3 The Chemical Fate of Sulfur in Thiophene Against Nitrate Radical Oxidation.** MICHAEL LUM, Kunpeng Chen, 1:30 Bradley Ries, Linhui Tian, Raphael Mayorga, Yumeng Cui, Nilofar Raeofy, David Cocker, Haofei Zhang, Roya Bahreini, Ying-Hsuan Lin, *University of California, Riverside*
- 6AC.4 Noncovalent Interactions in Brown Carbon Surrogates Lead to Enhanced Absorption of Visible Light.** COLTON 1:45 CALVERT, Holly Anthony, Nathan Huskins, Micah Miles, Elijah Schnitzler, *Oklahoma State University*
- 6AC.5 Formation and Properties of Secondary Organic Aerosol from Gas-Phase and Aqueous-Phase Oxidation of Substituted Phenolic Compounds.** Claire E. Moffett, Zezhen Cheng, Gregory W. Vandergrift, Jie Zhang, Swarup 2:00 China, ManishKumar Shrivastava, Gourihar Kulkarni, ALLA ZELENYUK, *Pacific Northwest National Laboratory*
- 6AC.6 Characterization of Oxygenated Volatile Organic Compounds and Secondary Organic Aerosol Generated from the Oxidation of Biogenic and Biomass Burning Precursors by Nitrate Radicals in an Oxidation Flow Reactor.** Andrew Lambe, CHASE GLENN, Bin Bai, Anomitra De, David Pando, Nga Lee Ng, Drew Gentner, Pengfei Liu, 2:15 *Aerodyne Research, Inc.*
- 6AC.7 Evaporation-induced Brown Carbon Formation in Secondary Organic Aerosols: Effects of Drying Conditions and Gas-phase Precursors.** Nethmi Kasthuriarachchi, Laura-Helena Rivellini, ALEX K.Y. LEE, *Environment and 2:30 Climate Change Canada*
- 6AC.8 Ammonium-Induced Stabilization of Imidazoles in the Particle Phase.** MALSHA AMUGODA, James F. Davies, 2:45 *University of California, Riverside*

#### 6AP AEROSOL PHYSICS IV: GENERATION AND DEPOSITION

SAN MIGUEL – Soodabeh Namdari and Mohammad Rahman, chairs

- 6AP.1 A Comprehensive Analysis of New Particle Formation Across the Northwest Atlantic: Analysis of ACTIVATE Airborne Data.** SOODABEH NAMDARI, Taiwo Ajayi, Yonghoon Choi, Ewan Crosbie, Josh DiGangi, Glenn Diskin, 1:00 Simon Kirschler, Hongyu Liu, John Nowak, Michael Shook, Cassidy Soloff, Kenneth Thornhill, Christiane Voigt, Edward Winstead, Bo Zhang, Luke Ziemba, Armin Sorooshian, *University of Arizona*
- 6AP.2 High Resolution Investigations into Non-Ideal Resuspension Phenomena.** EDWARD NEAL, Barnaby Miles, Lukesh 1:15 Mahato, Richard J. Thomas, Maurice Walker, Jack Vincent, Simon Parker, Virginia Foot, Emily Kruger, Jonathan P. Reid, *University of Bristol*
- 6AP.3 Modeling Aerosol Deposition Mechanisms in Spent Nuclear Fuel Dry Storage Casks Using MATLAB and Simulink.** JAMES HENRY, Ren Garity, Andrew Metcalf, John Saylor, *Clemson University* 1:30
- 6AP.4 Environmental Factors Driving Sea Spray Aerosolization-- A Laboratory-Scale Breaking Wave Case Study.** 1:45 RAYMOND LEIBENSPERGER III, Kimberly Prather, Grant B. Deane, M. Dale Stokes, Christopher Lee, Meinrat O. Andreae, Jena Herbst, Justin Hamlin, Ke' La Kimble, Charbel Harb, Greg Sandstrom, Joseph Mayer, Rob Klidy, Eric Pham, Elizabeth Pogue, *University of California San Diego*
- 6AP.5 Bubble Related Spray Aerosol Production.** XIAOFEI WANG, *Fudan University* 2:00
- 6AP.6 Particle Size Distribution Based on Mass and Number Count of Undiluted E-Cigarette Aerosols at Low Actuation Powers.** MOHAMMAD SHAJID RAHMAN, Edgar Matida, Tarik Kaya, *Carleton University* 2:15
- 6AP.7 Understanding Marine Boundary Layer Aerosol Number Budget Using Airborne Flux Measurement.** AJMAL 2:30 RASHEEDA SATHEESH, Nicholas Meskhidze, Markus Petters, *North Carolina State University*
- 6AP.8 Evaluation of Impacts of Haze Events on the Secondary Organic Aerosol Formation During the KORUS-AQ Campaign with CAMx-UNIPAR v1.4.** GANGHAN KIM, Myoseon Jang, Yujin Jo, Azad Madhu, *University of Florida* 2:45

6CE CHEMICALS OF EMERGING CONCERN IN AEROSOL: SOURCES, TRANSFORMATIONS, AND IMPACTS II: EMERGING URBAN SOURCES: TIRES & FIRES

RUIDOSO/PECOS – Doug Collins and Madeleine Cooke, chairs

- 6CE.1 Electrical and Chemical Properties of Brake Wear Particles.** JAMES SMITH, Adam Thomas, Paulus Bauer, 1:00 Véronique Perraud, Lisa Wingen, Michelia Dam, Madeline Cooke, Barbara Finlayson-Pitts, *University of California, Irvine*. INVITED.
- 6CE.2 Application of Mass Spectrometry Techniques to Study Tire Wear Particles and Associated Chemical Additives: From Laboratory Investigations to Field Studies.** Xing Wang, Michael A.R. Tawadrous, Bonnie Hamilton, Chelsea Rochman, Colman Wong, Yushan Su, Greg J. Evans, Arthur W. H. Chan, ALEX K.Y. LEE, *Environment and Climate Change Canada*
- 6CE.3 Characterization of Secondary Organic Aerosol Formation from Brake Emissions.** MADELINE COOKE, Adam 1:45 Thomas, Véronique Perraud, Lisa Wingen, Lena Gerritz, Berenice Rojas, Paulus Bauer, Barbara Finlayson-Pitts, James Smith, *University of California, Irvine*
- 6CE.4 Investigation of VOC Emissions and Retention from Wildland Urban Interface Fires.** WILLIAM DRESSER, Shantanu 2:00 Jathar, Christian L'Orange, Joost A. de Gouw, *University of Colorado*
- 6CE.5 Multiphase Oxidation and Chlorination Chemistry Involving Biomass Burning-Related Compounds.** DOUGLAS 2:15 COLLINS, Lauren Stettler, Christina Clarke, Olivia Jaye, Ryan Ziskin, *Bucknell University*
- 6CE.6 Mechanistic Insights into Radical Formation during the Photochemical Aging of Biomass Burning Secondary Organic Aerosols.** LENA GERRITZ, Sergey Nizkorodov, Manabu Shiraiwa, *University of California, Irvine*
- 6CE.7 Modeling Novel Aqueous Particle and Cloud Chemistry Processes of Biomass Burning Phenols Forming Secondary Organic Aerosol.** MANISHKUMAR SHRIVASTAVA, Jie Zhang, Lan Ma, Wenqing Jiang, Cort Anastasio, Qi Zhang, Alla Zelenyuk, *Pacific Northwest National Laboratory*

6CT COAST TO COAST CAMPAIGNS ON AEROSOLS, CLOUDS, CHEMISTRY, AND AIR QUALITY IV: SURFACE-BASED OBSERVATIONS OF AEROSOL COMPOSITION AND SOURCES ACROSS THE CONTINENTAL U.S.

MESILLA – Doug Day and Roya Bahreini, chairs

- 6CT.1 Understanding Aerosol Fluxes: Recent Observations and Insights into Particle Emission and Deposition.** 1:00 DELPHINE K. FARMER, Rutambhara Joshi, Roman Liedtke, Lillian Jones, Erin K. Boedicker, *Colorado State University*. INVITED.
- 6CT.2 Progress and Updates on Atmospheric Science and Chemistry Measurement Network (ASCENT): Advanced, Ground-based Aerosol Measurement Network Across the U.S..** NGA LEE NG, Roya Bahreini, Ann M. Dillner, 1:15 Armistead G. Russell, Alison Fankhauser, Richard Flagan, James Flynn, Drew Gentner, Robert Griffin, Lelia Hawkins, Jose-Luis Jimenez, Jingqiu Mao, Shane Murphy, Albert Presto, Sean Raffuse, Allen Robinson, John Seinfeld, Jason Surratt, Joel A. Thornton, *Georgia Institute of Technology*
- 6CT.3 Year-long Measurements of Aerosol Composition and Size Distributions at the ASCENT- Rubidoux Site.** ROYA 1:30 BAHREINI, Bradley Ries, Yumeng Cui, Erin Bowey, Sean Raffuse, Sabrina Westgate, Armistead G. Russell, Ann M. Dillner, Nga Lee Ng, *University of California, Riverside*
- 6CT.4 First Year of Aerosol Characterization at the ASCENT-Atlanta Site: Temporal and Seasonal Variations of Aerosol Chemical Composition and Sources.** RUIZHE LIU, Alison Fankhauser, Yutong Liang, David Pando, Roya 1:45 Bahreini, Ann M. Dillner, Armistead G. Russell, Nga Lee Ng, *Georgia Institute of Technology*



**6CT.5 Characterizing the Sources of Aerosols and Volatile Organic Compounds (VOCs) Impacting Air Quality at the Denver ASCENT Site.** SEONSIK YUN, Douglas A. Day, Anne V. Handschy, Erick Mattson, Abby Koss, Maya Abou-Ghanem, Joost A. de Gouw, Rainer M. Volkamer, Roya Bahreini, Ann M. Dillner, Armistead G. Russell, Nga Lee Ng, Jose-Luis Jimenez, *University of Colorado, Boulder*

**6CT.6 From TexAQs 2000 to ASCENT: The Evolution of Sources and Chemical Compositions of Nonrefractory Submicron Particles Based on Surface Aerosol Mass Spectrometry Measurements in Houston, Texas.** FANGZHOU GUO, Robert Griffin, Manjula Canagaratna, Subin Yoon, Chun-Ying Chao, James Flynn, Barry Lefer, Shan Zhou, Luke Ziemba, Henry Wallace, Qili Dai, Benjamin Schulze, Roya Bahreini, Ann M. Dillner, Armistead G. Russell, Nga Lee Ng, Scott Herndon, *Aerodyne Research, Inc.*

**6CT.7 Ambient Particulate Metals and Their Sources at the Los Angeles ASCENT Site.** HAROULA D. BALIACA, Ryan X. Ward, Sina Hasheminassab, Paul Wennberg, Roya Bahreini, Ann M. Dillner, Armistead G. Russell, Nga Lee Ng, Richard Flagan, John Seinfeld, *California Institute of Technology*

**6CT.8 Real-Time Characterization of Fine Aerosol Composition during the First Year of Continuous Operation at the Look Rock, TN ASCENT Site.** NICOLAS ALIAGA BUCHENAU, Cade Christensen, James Renfro, Bill Hicks, Roya Bahreini, Ann M. Dillner, Armistead G. Russell, Nga Lee Ng, Jason Surratt, *University of North Carolina at Chapel Hill*

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6HR HEALTH RELATED I: STUDIES OF AEROSOL TOXICITY IN THE AMBIENT ENVIRONMENT  
LA CIENEGA – Manabu Shiraiwa and Vishal Verma, chairs

**6HR.1 Impact of Wildfires on the Oxidative Potential of Ambient Aerosol.** BRADLEY ISENER, Arthur W. H. Chan, *University of Toronto*

**6HR.2 High Time Resolution Quantification of PM<sub>2.5</sub> Oxidative Potential in London.** STEVEN CAMPBELL, Alexandre Barth, Ian (Gang) Chen, Anja Tremper, Max Priestman, David Ek, Markus Kalberer, David Green, *Imperial College London*

**6HR.3 Chemical, Oxidative, and Toxicological Profiles of Fine Ambient Particulate Matter in Alaska.** OLUCHI NWEKE, P. S. Ganesh Subramanian, Sudheer Salana, Anastasia Hewitt, Raghu Betha, Vishal Verma, *University of Illinois, Urbana Champaign*

**6HR.4 Reactive Oxygen Species and Oxidative Potential of Outdoor and Indoor Particulate Matter in Wintertime Fairbanks, Alaska.** SUKRITI KAPUR, Kasey Edwards, Ting Fang, Meredith Schervish, Pascale Lakey, Yuhan Yang, Ellis Robinson, Peter F. DeCarlo, William Simpson, Rodney J. Weber, Manabu Shiraiwa, *University of California, Irvine*

**6HR.5 Air-borne Particulate Matter and Its Characteristics in the Indoor/Outdoor Environment of the Most Populated City of India.** JAMSON MASIH, Sachin Gupta, Lorraine Tellis, *Chemistry Department, Wilson College*

**6HR.6 Impact of Gaseous Pollutants on the Incidence of Cardiovascular Diseases: A Case Study from Karachi, Pakistan.** Haider Khwaja, OMOSEHIN MOYEBI, Zafar Fatmi, Azhar Siddique, Mirza M. Hussain, David Carpenter, *Wadsworth Center, University at Albany*

**6HR.7 Adjoint Modeling of Spatially-Specific Health Benefits of PM<sub>2.5</sub>-related Controls and Linked Co-benefits from Greenhouse Gas Controls.** Amir Hakami, Shunliu Zhao, Marjan Soltanzadeh, Petros Vasilakos, Burak Oztaner, Neal Fann, Howard Chang, Alan Krupnick, Anas Alhusban, ARMISTEAD G. RUSSELL, *Georgia Institute of Technology*

**6HR.8 Modeling the Fukushima Daiichi Nuclear Disaster with QUIC-DEPDOSE.** MATTHEW NELSON, John Klumpp, Diego Rojas Blanco, Liam Wedell, Sonali John, Chibuike Onwukwe, Sara Brambilla, Michael Brown, *Los Alamos National Laboratory*

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6PA PLANETARY AEROSOLS: FROM EARTH TO EXOPLANETS I  
BALLROOM A – Ellie Browne and Melissa Trainer, chairs

**6PA.1 Lifting the Veil of Hazes on Planetary Atmospheres through Modeling and Observation.** ERIC WOLF, *University of Colorado*. INVITED.

**6PA.2 Understanding the Photochemical Production of Complex Organosulfur Compounds in Archean-Analog Aerosols: Implications for Early Earth and Exoplanets.** CADE CHRISTENSEN, Nathan Reed, Margaret Tolbert, Eleanor Browne, Jason Surratt, *University of North Carolina at Chapel Hill*

**6PA.3 Aqueous Reactivity of Reduced Sulfur Species under Anoxic Conditions: Implications for Planetary Habitability.** REBECCA RAPF, Sukrit Ranjan, Jackson Witkow, Raider Horn, Marco Botello, *Trinity University*

**6PA.4 Investigating the Formation and Properties of (Exo)Planetary Atmospheric Aerosols, a Cross-Disciplinary Research Endeavour.** ELLA SCIAMMA-O'BRIEN, Erika Barth, Tanguy Bertrand, Jason Cook, Dale Cruikshank, Cristina Dalle Ore, Thomas Drant, David Dubois, Al Emran, William Grundy, Ashton Homyk, Sarah Hörst, Laura Iraci, Lora Jovanovic, Christopher Materese, Michel Nuevo, Zoé Perrin, Pascal Rannou, Claire Ricketts, Ted Roush, Farid Salama, Josh Sebree, Sandrine Vinatier, Diane Wooden, Xinting Yu, *NASA Ames Research Center, Moffett Field, CA*. INVITED.

**6PA.5 Preparatory Lab Experiments for the Upcoming Rocket Lab Mission as Part of the Morning Star Missions to Venus.** KEVIN JANSEN, Sara Seager, Janusz Petkowski, Christopher Carr, Darrel Baumgardner, Margaret Tolbert, Weston Buchanan, Iaroslav Iakubivskiy, Steven Benner, Jingcheng Huang, *Massachusetts Institute of Technology*

**6PA.6 Studying the Microphysics of Particles in Outer Solar System Atmospheres with PlanetCARMA.** ERIKA BARTH, *Southwest Research Institute*

**Wednesday 3:00 PM – 3:30 PM**  
**Coffee Break**

**Wednesday 3:30 PM – 5:00 PM**  
**Session 7: Platform**

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7AC AEROSOL CHEMISTRY V: MODELING AEROSOL CHEMISTRY PROCESSES  
BALLROOM B/C – Christopher Kenseth and Celia Faiola, chairs

**7AC.1 Impacts of Peroxy Radical Fates on  $\alpha$ -Pinene Secondary Aerosol Composition.** ERIK HELSTROM, Lesly Franco Deloya, Hannah Kenagy, Anita Avery, Manjula Canagaratna, Jesse Kroll, *MIT*

**7AC.2 Modeling Secondary Organic Aerosol Formation via Nighttime Atmospheric Chemistry of Phenolic Compounds.** QUANG TRAN VUONG, Myoseon Jang, Jiwon Choi, *University of Florida*

**7AC.3 From the Smog Chamber to the 2D-VBS Parameterization of Secondary Organic Aerosol Formation.** 4:00 DAMIANOS PAVLIDIS, Petro Uruci, Angeliki Matralli, Spyros N. Pandis, *University of Patras Greece*

**7AC.4 Modeling Peroxy Radical Conditions of Historical SOA Chamber Studies.** MATTHEW GOSS, Hannah Kenagy, Jesse Kroll, *MIT*

**7AC.5 A Systematic Comparison between Laboratory Chamber Measurements and Mechanistic Predictions of Complex Oxidation Reactions.** JIA JIANG, Lesly Franco Deloya, Erik Helstrom, Havala Pye, Rebecca Schwantes, T. Nash Skipper, Jesse Kroll, *Massachusetts Institute of Technology*

## **7AC.6 Rapid Deposition Prevents the Formation of Late-Generation Products and Aerosols in Real-World**

4:45 **Atmospheres.** Chenyang Bi, GABRIEL ISAACMAN-VANWERTZ, *Virginia Tech*

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7CE CHEMICALS OF EMERGING CONCERN IN AEROSOL: SOURCES, TRANSFORMATIONS, AND IMPACTS III: PFAS IN AEROSOLS  
*RUIDOSO/PECOS* – Ben Murphy and Chenyang Bi, chairs

### **7CE.1 Emission Profiles of Fluorinated Aerosol Precursors from Rain Jackets Measured by I-HR-ToF-CIMS.** CLARA

3:30 EICHLER, Michael Davern, Jason Surratt, Glenn Morrison, Barbara Turpin, *UNC-Chapel Hill*. INVITED.

### **7CE.2 Automated Liquid Calibration Inlet for Online Measurements of Airborne PFAS.** CHENYANG BI, Michael Davern,

4:00 Clara Eichler, Mitchell Alton, Anita Avery, Nathan Kreisberg, Barbara Turpin, Jason Surratt, John Jayne, Manjula Canagaratna, *Aerodyne Research Inc.*

### **7CE.3 Indoor Residential Exposure to PFAS and Emissions to the Outdoor Environment: Results from the IPA**

4:15 **Campaign.** Naomi Chang, Clara Eichler, Daniel Amparo, Elaine Cohen Hubal, Jason Surratt, Glenn Morrison, BARBARA TURPIN, *UNC-Chapel Hill*

### **7CE.4 Contribution of Condensed-Phase Hydrolysis to Atmospheric Production of GenX.** Emma D'Ambro, BENJAMIN

4:30 MURPHY, Ivan Piletic, Havala Pye, *U.S. Environmental Protection Agency*

### **7CE.5 UV Photooxidation Results in Efficient and Accelerated Remediation of PFAS Water Contaminants in Aerosol**

4:45 **Microdroplets.** RILEY WEATHERHOLT, Kaitlyn Chung, Bailey Bowers, Ryan Sullivan, *Carnegie Mellon University*

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7HR HEALTH RELATED II: METHODOLOGIES FOR ASSESSING AEROSOL HEALTH EFFECTS

*LA CIENEGA* – Akua Asa-Awuku and Meredith Schervish, chairs

### **7HR.1 Development of a Flow Imaging Microscopy-based Method for Rapid and High-throughput Measurement of**

3:30 **Fiber Count and Length Distributions.** BON KI KU, Pramod Kulkarni, *Centers for Disease Control and Prevention, NIOSH*

### **7HR.2 How the Use of an Atmospheric Smog Chamber Allows Us to Investigate the Impact of Urban Air Pollution on**

3:45 **the Exacerbation of Pulmonary Fibrosis.** AMBRE DELATER, Zakaria Maakoul, Elie Al Marj, Aline Gratien, Lucy Gerard, Juan Camilo Macias Rodriguez, Mathieu Cazaunau, Edouard Pangui, Antonin Berger, Cécile Gaimoz, Bénédicte Picquet-Varrault, Dominique Marchant, Jean-François Bernaudin, Emilie Boncoeur, Clément Buisson, Audrey Der Vartanian, Sophie Lanone, Patrice Coll, Carole Planes, Nicolas Voituron, *Université Paris Cité and Univ Paris Est Creteil, CNRS, LISA*

### **7HR.3 Comparing the Biocompatibility of Diffusion Flame-Generated Soot to Human Lung Cells by Two Commonly**

4:00 **Used In-Vitro Cultures: Monolayer and Air-Liquid Interface.** Durgesh N. Das, Paul Hamilton, Shubham Sunil Sharma, DHRUV MITROO, Benjamin Kumfer, *Veterans Research and Education Foundation*

### **7HR.4 Applying Condensational Growth for Direct Exposure of Human Small Airway Epithelial Cells to Flame-**

4:15 **Generated Soot.** SHUBHAM SUNIL SHARMA, Dhruv Mitroo, Durgesh N. Das, Paul Hamilton, Joseph V. Puthussery, Rajan K. Chakrabarty, Benjamin Kumfer, *Washington University in St. Louis*

### **7HR.5 Visualization of Water Uptake by Human Respiratory Aerosol Components with In Situ Transmission Electron**

4:30 **Microscopy.** MARTIN AHN, Taylor J. Woehl, Akua Asa-Awuku, *University of Maryland, College Park*

### **7HR.6 Innovative Sampling Methodology for Detecting Viral Aerosols in Exhaled Breath: Enhancing Understanding**

4:45 **of Influenza Transmission in Child Care Settings.** ANUBHAV KUMAR DWIVEDI, Emily Hong, Hunter Richards, Zhenyu Ma, Herek L. Clack, Khalil Chedid, Emily Martin, Andrew Hashikawa, Linsey Marr, *University of Michigan*



7IM INSTRUMENTATION AND METHODS V: PHYSICS  
BALLROOM A – Eben Cross and Nishan Sapkota, chairs

**7IM.1 The Condensation Particle Counter For Rapid Atmospheric Measurements (CPC FARM): Instrument**

3:30 **Description and Field Results.** DARREN CHENG, Stavros Amanatidis, Gregory S. Lewis, Coty Jen, *Carnegie Mellon University*

**7IM.2 Optimizing Design Parameters for Miniaturized Condensation Particle Counters: Insights into Ultrafine**

3:45 **Particle Detection.** MOLLY J. HAUGEN, Shaamrit Balendra, Ashkay Kale, Lee Weller, Adam M Boies, *University of Cambridge*

**7IM.3 Characterization and Performance of a Low-Cost, Open Source Condensation Particle Counter (CPC).** AARON

4:00 COLLINS, *OpenAeros LLC*

**7IM.4 An Online Condensation-based Technique to Measure the True Volume and Density of Aerosol Particles.**

4:15 CYPRIEN JOURDAIN, Julie Pongetti, Jonathan Symonds, Adam M Boies, *University of Cambridge*

**7IM.5 Boosting the Detection of Flame-formed Sub-5nm Materials by Operating the Saturator Inlet of a Water**

4:30 **Condensation Particle Counter (WCPC) with Different Condensing Fluids.** Farnaz Khosravi, Arantzazu Eiguren-Fernandez, Gregory S. Lewis, FRANCESCO CARBONE, *University of Connecticut*

**7IM.6 Field Evaluation of a Community Condensation Particle Counter for Ultrafine Particle Monitoring.** SUSANNE

4:45 HERING, Arantzazu Eiguren-Fernandez, David Pariseau, Judith Chow, John Watson, Xiaoliang Wang, *Aerosol Dynamics Inc.*

7NP NANOPARTICLES AND MATERIALS SYNTHESIS I  
SAN MIGUEL – Jicheng Feng and Yiming Xi, chairs

**7NP.1 Aerosol Engineering of Battery Electrodes: A Review of a Decade of Spray Drying and Spray Pyrolysis of**

3:30 **Intercalation and Conversion Materials.** ADAM M BOIES, Manar Almazrouei, Maurits Houck, Jean de La Verpilliere, Michael De Volder, *University of Cambridge*

**7NP.2 A General Flame Aerosol Route to Kinetically Stabilized Metal Organic Frameworks.** Shuo Liu, Chaochao Dun,

3:45 Jeffrey Urban, MARK SWIHART, *University at Buffalo – SUNY*

**7NP.3 The Flat Premixed Droplet Seeded Flame (FPDSF): a versatile method to manufacture nanostructured**

4:00 **catalyst materials.** OWEN S. FUHR, Farnaz Khosravi, Mahmoud K. Ashour, Francesco Carbone, *University of Connecticut*

**7NP.4 Embedding Pd into Flame-Aerosol Made and Leached Nanostructured Tin Oxide Particles Drastically**

4:15 **Enhances Gas Sensing.** Katarzyna Jabczyńska, Christian Kubsch, Alexander Gogos, SOTIRIS E. PRATSINIS, *ETH Zurich, Switzerland*

**7NP.5 Crumpled Graphene Oxide (CGO)-based Drug Delivery System.** YIMING XI, Shalinee Kavadiya, Daniel Bilbao,

4:30 Roberts Evan, Russo Marco, Pratim Biswas, *University of Miami*

**7NP.6 Using Electric Fields for 3D Nanoprinting of Aerosols into Nanoarchitectures.** Bingyan Liu, Shirong Liu, Jingui Ai,

4:45 Yuxiang Yin, Yueqi Zhang, JICHENG FENG, *ShanghaiTech University*

7SC EXHIBITOR SHOWCASE 2  
HALL 3 – Andy Grieshop and Cameron Martin, chairs

**7SC.1 Aethalometer AE36 Measurements: A Comprehensive Guide for Accurate Instrument Installation and Effective Data Analysis Techniques.** MARTIN RIGLER, Matic Ivančič, Bálint Alföldy, Irena Ježek Brecej, Asta Gregorič, *Aerosol Magee Scientific*

**7SC.2 Using a Vaporization Inlet for Aerosols Coupled with a Vocus Mass Spectrometer to Better Characterize Gas- and Particle-Phase Atmospheric Chemistry.** Mitchell Alton, Philip Croteau, Andrew Lambe, Chase Glenn, Anita Avery, Leah Williams, MANJULA CANAGARATNA, *Aerodyne Research, Inc.*

7UA URBAN AEROSOLS I: AEROSOLS IN CITIES AROUND THE WORLD  
MESILLA – Jillianne Taylor and Chun-Ying Chao, chairs

**7UA.1 In-Situ Secondary Organic Aerosol Formation Rate in Houston during the Tracking Aerosol Convection Interactions Experiment (Tracer) Field Campaign.** CHUN-YING CHAO, Fangzhou Guo, Donna Sueper, Subin Yoon, Kimberly Saucedo, Zihan Zhu, Sergio Alvarez, Shan Zhou, Manisha Mehra, Sujan Shrestha, Prakash Sharma, James Flynn, Rebecca J. Sheesley, Sascha Usenko, Don Collins, Robert Griffin, *Rice University*

**7UA.2 Assessing Spatiotemporal Variability of PM2.5 Sources in Salt Lake County Utah during Persistent Cold Air Pool Events.** Michael Hannigan, Colleen Reid, Daniel Mendoza, Emma Rieves, MiKyla Harjamaki, JONATHAN SILBERSTEIN, *University of Colorado at Boulder*

**7UA.3 Online Molecular Characterization of Oxygenated Organic Compounds in Gas and Particle Phases in Winter Fresno: Influences From Residential Wood Burning and Aqueous Phase Processing.** WENQING JIANG, Christopher Niedek, Anita Avery, Harald Stark, Manjula Canagaratna, Qi Zhang, *University of California, Davis*

**7UA.4 Air Pollution We Breathe: Assessing the Air Quality and Human Health Impact in a Megacity of Southeast Asia.** HAIDER KHWAJA, Fatim Sannoh, Zafar Fatmi, David Carpenter, Muhayatun Santoso, Azhar Siddique, Kamran Khan, Jahan Zeb, Mirza M. Hussain, *Wadsworth Center, University at Albany*

**7UA.5 Estimation of Total and Biomass-Based BC at African Cities by Applying Image-Reflectance Method on Bam Tapes.** Abhishek Anand, Richard Djarbeng, Evelyne Toure, Julien Bahino, Sylvain Gnamien, Allison Felix Hughes, Raphael E Arku, Victoria Owusu Tawiah, Araya Asfaw, Tesfaye Mamo, Sina Hasheminassab, Solomon Bililign, Daniel Westervelt, ALBERT A. PRESTO, *Carnegie Mellon University*

**7UA.6 Seasonal Variations and Chemical Drivers of the Oxidative Potential of PM2.5 in Sao Paulo, Brazil: Insights from DTT and ESR Assays.** CAROLINE FERNANDA HEI WIKUATS, Thiago Nogueira, Alessandra Tammara, Flemming Cassee, Maria de Fatima Andrade, *University of São Paulo*

Wednesday 5:00 PM – 6:00 PM

Working Group Meetings 2: Aerosol Physics (Mesilla)

Wednesday 5:00 PM – 6:00 PM

Working Group Meetings 2: Atmospheric Aerosols (Ballroom A)

Wednesday 5:00 PM – 6:00 PM

Working Group Meetings 2: Bioaerosols (San Miguel)

Wednesday 5:00 PM – 6:00 PM

Working Group Meetings 2: Control and Mitigation Technology (La Cienega)

Wednesday 5:00 PM – 6:00 PM

Working Group Meetings 2: Indoor Aerosols and Aerosol Exposure (Ruidoso/Pecos)

Wednesday 6:00 PM – 7:00 PM

Annual Business Meeting (Ballroom B/C)

Wednesday 7:30 PM – 10:00 PM

Night at the Museum (Buses will begin departing at 7 PM from the conference center main entrance)

#### Thursday

Thursday 7:00 AM – 8:00 AM

Committee Meetings V – Conference (Jemez)

Thursday 7:00 AM – 8:00 AM

Committee Meetings V – Publications (Navajo)

Thursday 7:00 AM – 8:00 AM

Committee Meetings V – Representation and Equity Affairs (Nambe)

Thursday 8:00 AM – 9:15 AM

Plenary III

8:00 **Friedlander Lecture: Don't Hold Your Breath! Tissue Chips and Other In Vitro Models for Studies of Inhalation Toxicology** Ivan Rusyn, *Texas A&M University*

**Moderator** Manuba Shiraiwa, *UC Irvine*

9:00 **Friedlander and Herring Awards Presentations, AS&T Outstanding Publication and Outstanding Reviewer Awards Presentation** Alex Laskin, Jonathan Reid, *Purdue, University of Bristol*

Thursday 9:00 AM – 3:30 PM

Exhibits Open

Thursday 9:15 AM – 9:45 AM

Coffee Break

Thursday 9:45 AM – 11:30 AM

Session 8: Platform

8AC AEROSOL CHEMISTRY VI: MULTIPHASE CHEMISTRY OF ATMOSPHERIC AEROSOLS

BALLROOM B/C – Miriam Freedman and Daniel Katz, chairs

**8AC.1 Aqueous-Phase Chloramine Production as a Missing Chain in Atmospheric Chlorine Chemistry.** YIJING CHEN,

9:45 Men Xia, Jinghui Zhang, Epameinondas Tsiligiannis, Chao Yan, Runlong Cai, Guangjie Zheng, Junchen Guo, Zhaojin An, Yiran Li, Yuyang Li, Cheng Wu, Qipeng Qu, Xinyan Zhao, Chenjie Hua, Zongcheng Wang, Shuxiao Wang, Yongchun Liu, Lina Cao, Douglas Worsnop, Kebin He, Mattias Hallquist, Tao Wang, Jingkun Jiang, *Tsinghua University*

**8AC.2 Enhanced Sulfate Formation through Synergistic Effects of Chlorine Chemistry and Photosensitization in**

10:00 **Atmospheric Particles.** RUIFENG ZHANG, Chak K. Chan, *King Abdullah University of Science and Technology*

**8AC.3 Nitrate-mediated Photooxidation of Green Leaf Volatiles under Cloud/Fog-like vs. Aerosol-like Conditions.**

10:15 Yuting Lyu, Ruihan Ma, Tianye Zhou, Taekyu Joo, Shun Yeung, Cheuk Yi Wong, Yifang Gu, Yiming Qin, THEODORA NAH, *City University of Hong Kong*

**8AC.4 Time-Resolved Photochemical Dynamics of Pyruvic Acid in Aqueous Solutions.** MIN-HSIEN (TONY) KAO,

10:30 Conlan Broderick, Jim Walker, Andrew J. Orr-Ewing, Bryan R. Bzdek, *University of Bristol*

**8AC.5 Multiphase Control of Complex Kinetics in Aqueous Microdroplets.** ALEXANDRA DEAL, Franky Bernal, Alexander

10:45 Prophet, Richard Saykally, Kevin R. Wilson, *Lawrence Berkeley National Laboratory*

**8AC.6 Impact of Temperature on Gas-Particle Phase Transitions and Secondary Organic Aerosol Formation in  $\alpha$ -Pinene and Cyclohexene Ozonolysis Systems.** DANIEL GONZALEZ, Yanyu Zhang, Thomas Eckel, David R. Cocker III, *University of California, Riverside*

**8AC.7 The Role of Aerosol Acidity and Buffering Capacity in the Reactive Uptake and Chemical Feedbacks of Gaseous N<sub>2</sub>O<sub>5</sub>-Organic Aerosol Systems.** GRAHAM THORNHILL, Luke Monroe, Jack Hall, Ryan Sullivan, *Carnegie Mellon University*

8CA CARBONACEOUS AEROSOLS I: AEROSOL CHEMISTRY, METHODS, AND WILDFIRES  
SAN MIGUEL – Ying-Hsuan Lin and Gregory Vandergrift, chairs

**8CA.1 A New Methodology to Assess the Water Uptake by Organic Aerosols.** NAGENDRA RAPARTHI, Ann M. Dillner, Anthony S. Wexler, *Air Quality Research Center, UC Davis*

**8CA.2 Are We Measuring What We Think We're Measuring? Assessing the ACSM's Sampling Efficiency.** Arthur J. Sedlacek, Maria Zawadowicz, Ogochukwu Enekwizu, Ernie R. Lewis, AMIE DOBRACKI, *Brookhaven National Laboratory*

**8CA.3 Probing Diverse Biomass Combustion Modes through Experiments with a Controlled Atmosphere Cone Calorimeter.** Vilhelm B. Malmberg, Ioannis Sadiktsis, Axel Eriksson, Johannes Rex, Dan Madsen, Patrick van Hees, ANDREW GRIESHOP, Joakim Pagels, *Lund University, Sweden*

**8CA.4 Rapid Nighttime Darkening of Biomass Burning Brown Carbon by Nitrate Radicals Is Suppressed by Prior Daytime Photochemical Processes.** CAROLYN LIU-KANG, Laura-Helena Rivellini, Jonathan Abbatt, *University of Toronto*

**8CA.5 Direct Observation of Increased Aloft Organic Dinitrates and Oxidized Organosulfates from the Southern Great Plains and TRACER Campaign.** GREGORY W. VANDERGRIFT, Darielle Dexheimer, Damao Zhang, Zezhen Cheng, Nurun Nahar Lata, Mickey Rogers, ManishKumar Shrivastava, Jie Zhang, Brian Gaudet, Fan Mei, Lindsay Yee, Allen Goldstein, Swarup China, *Pacific Northwest National Laboratory*

**8CA.6 Unraveling Urban vs. Wildfire Influences in Aerosol Properties over Thailand during Airborne and Satellite Investigation of Asian Air Quality (ASIA-AQ) Campaign.** SAYANTEE ROY, Elizabeth Wiggins, Francesca Gallo, Michael Shook, Josh DiGangi, Glenn Diskin, Carolyn Jordan, Edward Winstead, Viphada Boonlerd, Luke Ziemba, Richard Moore, *NASA Langley*

**8CA.7 Ambient Dust, Entrained Soil and the Toxicity of Wildfire Smoke in a Changing Climate.** BROOKE L. HEMMING, Anne E. Barkley, *U.S. Environmental Protection Agency*

8CE CHEMICALS OF EMERGING CONCERN IN AEROSOL: SOURCES, TRANSFORMATIONS, AND IMPACTS IV: CHEMICAL CONTAMINANTS INDOORS AND OUTDOORS  
RUIDOSO/PECOS – Jenna Ditto and Emily Franklin, chairs

**8CE.1 Field Observations of Organic Contaminants at the Coast and Studies of Their Photo-induced Degradation Pathways and Kinetics in Sea Spray Aerosols.** JONATHAN SLADE, *University of California San Diego*. INVITED.

**8CE.2 Partitioning of ROS from Lipid Film to DOS Film through Air.** ZHENDUO YAO, Glenn Morrison, *University of North Carolina at Chapel Hill*

**8CE.3 Photo-initiated Degradation Kinetics of the Organic UV filter Oxybenzone in Solutions and Aerosols: Impact of Salt, Photosensitizers, and the Medium.** ADAM COOPER, Alexis Shenkiryk, Maya Morris, Tessa Tafuri, Jonathan Slade, *University of California San Diego*



**8CE.4 Wastewater Treatment Plants as Major Sources of Atmospheric PFAS and Microplastics.** AIDAN MCCLURE,  
10:45 Kanchana Chandrakanthan, Paul Westerhoff, Matthew Fraser, Pierre Herckes, *Arizona State University*

**8CE.5 Particle Emissions from Electric Vehicle Fast Charging Stations.** Yuan Yao, Muchuan Niu, Haoxuan Chen, Qiao  
11:00 Yu, Qingyang Wu, Michael Jerrett, YIFANG ZHU, *University of California, Los Angeles*

**8CE.6 Investigating the Effectiveness of a Ventilation Intervention on Air Quality in a Commercial Kitchen.** Yinxgi Lu,  
11:15 Tyler Cargill, Zhiyao Li, Jay R. Turner, JENNA DITTO, *Washington University in St. Louis*

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8HR HEALTH RELATED III: CHEMICAL AND PHYSICAL CHARACTERIZATION OF HEALTH-RELATED AEROSOLS  
LA CIENEGA – Tran Nguyen and Adam Boise, chairs

**8HR.1 Dependence of Aerosol-borne Influenza A Virus Infectivity on Relative Humidity, Aerosol and Air  
9:45 Composition.** GHISLAIN MOTOS, Aline Schaub, Laura Costa Henriques, Celine Terrettaz, Christos Kaltsonoudis,  
Irina Glas, Klein Liviana, Nir Bluvshtein, Beiping Luo, Kalliopi Violaki, Marie Pohl, Walter Hugentobler, Ulrich Krieger,  
Spyros N. Pandis, Silke Stertz, Thomas Peter, Tamar Kohn, Athanasios Nenes, Shannon David, *EPFL, Switzerland*

**8HR.2 Mucin Protects Influenza a Virus from Decay in Evaporating Droplets.** JIN PAN, Nisha Duggal, Seema  
10:00 Lakdawala, Nicole C. Rockey, Linsey Marr, *Virginia Tech*

**8HR.3 Characterizing the Transient Emission of Particles and Gases From Single Puff of Electronic Cigarette Smoke.**  
10:15 KAPIAMBA KASHALA FABRICE, Yue-Wern Huang, Yang Wang, *University of Miami*

**8HR.4 Effects on Carbonyl Formation from Addition of Vanillin to Electronic Cigarette Vape Liquids.** NICHOLAS  
10:30 ROBERTSON, Haylee Hunsaker, Elizabeth Chiu, Tran Nguyen, *University of California, Davis*

**8HR.5 Photochemical Aging of Gasoline Car- and Wood Combustion-Emissions Increase Adverse Effects in Air-  
10:45 Liquid Interface (ALI) Exposed Human Lung Cells.** Svenja Offer, Hendryk Czech, Sebastiano Di Bucchianico,  
Mathilde Delaval, Sebastian Öder, Jana Pantzke, Johannes Becker, Anja Huber, Anni Hartikainen, Pasi Jalava,  
Mika Ihalainen, Pasi Yli-Pirilä, Olli Sippula, RALF ZIMMERMANN, Consortia ULTRHAS, Team aeroHEALTH, *Mass  
Spectrometry Centre;Rostock University/Helmholtz Munich*

**8HR.6 Size Distribution, Chemical Composition, and Source Contributions of Underground Coal Mine Dust.**  
11:00 XIAOLIANG WANG, Mohammadreza Elahifard, Bankole Osho, L.-W. Antony Chen, Judith Chow, John Watson,  
Behrooz Abbasi, *Desert Research Institute*

**8HR.7 Tracking Tire Wear Particles: Overhyped or Understudied?** MOLLY J. HAUGEN, Siriel Saladin, Philipp Buhler, David  
11:15 O'Loughlin, Stefan Schladfle, Chiara Giorio, Adam M Boies, *University of Cambridge*

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8IM INSTRUMENTATION AND METHODS VI: SAMPLING, GENERATION, FACILITIES  
BALLROOM A – Kyle Gorkowski and Shreya Joshi, chairs

**8IM.1 Development and Testing of Methods for the Continuous Measurement of the Concentration and  
9:45 Composition of PM<sub>0.1</sub>.** Georgia Argyropoulou, Kalliopi Florou, Andreas Aktypis, Angeliki Matrali, Damianos  
Pavlidis, SPYROS N. PANDIS, *University of Patras*

**8IM.2 A Beta Attenuation System for Mass Determination of Filter-Based Aerosol Samples.** JULIAN PROBSDORFER,  
10:00 Emily Macqueene, Jack Kodros, Christian L'Orange, John Volckens, *Colorado State University*

**8IM.3 Automated Droplet Freezing Assay System: Investigating Soil and Biogenic Particle Ice Formation.** NURUN  
10:15 NAHAR LATA, Gourihar Kulkarni, Sarah Williams, Mickey Rogers, Swarup China, *Pacific Northwest National  
Laboratory*



**8IM.4 Investigations of Particle Hygroscopicity using High Purity Aerosolization and Condensation Particle**

10:30 **Counting.** DEREK OBERREIT, Michael Walker, Jikku Thomas, *Kanomax FMT, Inc.*

**8IM.5 Advancing Planetary Climate Science with the Planetary Cloud Aerosols Research Facility (PCARF).** MIKE

10:45 PAUKEN, Luca Valdarno, Marcel Veismann, Dejian Fu, Joseph Salazar, Richard Flagan, Will Cantrell, *Jet Propulsion Laboratory, Caltech*

**8IM.6 Measuring the Charging Efficiency of Unipolar Charger in Electrical Low-Pressure Impactor for Soot**

11:00 **Aggregates.** NISHAN SAPKOTA, Timothy Sipkens, Mang Guan, Steven Rogak, *University of British Columbia*

**8IM.7 Designing a Cloud Chamber and Digital Twin Simulation for Studying Aerosol-Warm Cloud Interactions.** KYLE

11:15 GORKOWSKI, Nevil Franco, Hannah Brink, Liam Wedell, Matthew Nelson, Katherine Benedict, *Los Alamos National Laboratory*

8SC EXHIBITOR SHOWCASE 3

HALL3 – Amy Sullivan and Fred Brechtel, chairs

**8SC.1 Aerosol InfraRed (AIR) Monitor - Introduction to Continuous Infrared Spectroscopy of Particulate Matter (PM).**

9:45 NIKUNJ DUDANI, Andrea Baccharini, Arthur Blaser, Satoshi Takahama, *Aerospec SA*

**8SC.2 Residue Particles: Tips to Minimize a Potentially Problematic Artifact of Aerosol Generation.** Justin S. Koczak,

10:30 ANDREA J. TIWARI, Daniel R. Troolin, *TSI Incorporated*

8UA URBAN AEROSOLS II: MOBILE MEASUREMENTS, LOW-COST SENSORS, AND REMOTE SENSING

MESILLA – Sean Kinahan and Anita Avery, chairs

**8UA.1 Lake Breeze Effects on Urban Climate and Air Quality in Chicago Using Microsoft Eclipse Network.** Xiaoyu

9:45 Chen, Jhao-Hong Chen, Peiyuan Li, Scott Collis, Rao Kotamarthi, Paytsar Muradyan, Ashish Sharma, Lu Xu, JIAN WANG, *Washington University in St. Louis*

**8UA.2 Elucidating Spatial Variations of Non-Tailpipe Emissions through Comprehensive Saturation and Mobile**

10:00 **Measurements across Two Seasons.** CHEOL H. JEONG, Yee Ka Wong, Nicole Trieu, Sophie Roussy, Maria-Teresa Pay-Perez, Xing Wang, Taylor Edwards, Junshi Xu, Milad Saeedi, Arman Ganji, Bruce Urch, Marianne Hatzopoulou, Arthur W. H. Chan, Scott Weichenthal, Greg J. Evans, *SOCAAR, University of Toronto*

**8UA.3 Enhancing Polycyclic Aromatic Hydrocarbons (PAHs) Quantification through High-Resolution Aerosol Mass**

10:15 **Spectrometry for Mobile Sampling.** OLADAYO OLADEJI, Albert Presto, *Carnegie Mellon University*

**8UA.4 Hyperlocal Mobile Monitoring of Particle-Bound Metals in Two Environmental Justice (EJ) Communities in**

10:30 **the South Coast Air Basin.** Mohammad Sowlat, CHRISTOPHER LIM, Steven Boddeker, Julia Montoya-Aguilera, Zihan Zhu, Sina Hasheminassab, Payam Pakbin, Andrea Polidori, Jason Low, *South Coast Air Quality Management District*

**8UA.5 Accessibility to Localized Fine Particulate Matter (PM<sub>2.5</sub>) Data from Purple Air Sensors in Major U.S. Cities.**

10:45 MOHAMMED AHMED, Daniel Gingerich, Andrew May, *The Ohio State University*

**8UA.6 Using Colocations from 25+ Cities to Create a Global Correction for Optical Low-Cost PM<sub>2.5</sub> Sensors.** GARIMA

11:00 RAHEJA, Daniel Westervelt, *Columbia University*

**8UA.7 Status Update and Preliminary Results from the Ground-Based Particulate Matter Monitoring Network of the Multi-Angle Imager for Aerosols (MAIA) Investigation.** SINA HASHEMINASSAB, David Diner, Jeff Blair, Ann M. Dillner, Yang Liu, Christian L'Orange, Randall Martin, Christopher Oxford, Jeremy A. Sarnat, MAIA Team, *Jet Propulsion Laboratory, Caltech*

**Thursday 11:30 AM – 1:00 PM**  
**AS&T Editorial Advisory Board Lunch (Isleta)**

**Thursday 11:30 AM – 1:00 PM**  
**Light Take-Away Lunch**

**Thursday 12:00 PM – 1:00 PM**  
**Committee Meetings VI – Early Career (Navajo)**

**Thursday 12:00 PM – 1:00 PM**  
**Committee Meetings VI – Long-range planning (Jemez)**

**Thursday 12:00 PM – 1:00 PM**  
**ASCENT Meeting (Ruidoso/Pecos)**

**Thursday 12:00 PM – 1:00 PM**  
**Representation/Equity Affairs and Community Engaged Research Program (Ballroom B/C)**

**Thursday 1:00 PM – 3:00 PM**  
**Session 9: Poster**

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9AC AEROSOL CHEMISTRY XI

HALL 3

**9AC.1 Multiphase Reactivity of Benzotriazole Ultraviolet Stabilizers.** YAO YAN HUANG, Jonathan Abbatt, *University of Toronto*

**9AC.2 The Potential for Chlorine Activation in Continental Environments and from Urban Grime Surfaces.** EMMA MCLAY, Yao Yan Huang, D. James Donaldson, Trevor VandenBoer, *York University*

**9AC.3 Influence of Relative Humidity and Irradiation on the Reactive Uptake of Ozone onto Secondary Brown Carbon from Catechol in Thin Films.** SITHUMI LIYANAGE, Habeeb Al-Mashala, Katrina Betz, Elijah Schnitzler, *Oklahoma State University*

**9AC.4 Laboratory Characterization of the Aqueous-Phase Oxidation of Dimethyl Sulfide (DMS) and Its Oxidation Products.** SEAMUS FREY, Lexy LeMar, Jesse Kroll, *MIT*

**9AC.5 Characterization of Acid-Base Aerosol Nanoclusters Using a Thermal Desorption Chemical Ionization Mass Spectrometer with a Half-Mini Differential Mobility Analyzer.** COLLEEN MILLER, Paulus Bauer, Patricia M. Morris, Véronique Perraud, Barbara Finlayson-Pitts, James Smith, *University of California, Irvine*

**9AC.6 Use of an Oxidation Flow Reactor to Study Secondary Aerosol Formation from Methylated Selenium Compounds.** YING ZHOU, Linhui Tian, Erin Bowey, Michael Lum, Ying-Hsuan Lin, Roya Bahreini, Don Collins, *University of California, Riverside*

**9AC.7 Composition and Volatility Comparisons for Limonene Secondary Aerosol Generated from Multiple Oxidants.** MANJULA CANAGARATNA, Mitchell Alton, Harald Stark, Anita Avery, Andrew Lambe, *Aerodyne Research, Inc.*

- 9AC.8 Thermostability of Condensed-phase Amines in the Presence of Sulfuric and Oxalic Acids.** Grace Teall,  
1:00 CHONG QIU, *University of New Haven*
- 9AC.9 Estimating the Formation of Secondary Organic Aerosol under Controlled Atmospheric Conditions.** YANYU  
1:00 ZHANG, David R. Cocker III, *University of California, Riverside*
- 9AC.10 Biomass Burning Organic Aerosol as a Pool of Reactive Triplet Molecules to Drive Multiphase Reactions.**  
1:00 ZHANCONG LIANG, Liyuan Zhou, Yuqing Chang, Salim Sioud, Chak K. Chan, *King Abdullah University of Science and Technology*
- 9AC.11 Particle-Phase Formation of OOMs in Biogenic New Particles: New Insights from LC-ESI Orbitrap and FIGAERO-CIMS Mass Spectrometer Analysis.** VIGNESH VASUDEVAN GEETHA, Lee Tiszenkel, Robin Russo, Daniel J. Bryant, Shanhu Lee, *The University of Alabama in Huntsville*
- 9AC.12 Particulate Nitrate Photolysis in HONO Production: Impacts of Aerosol Phase States, Acidity, and Actinometry Calibration.** JUN ZHENG, He-shan Ning, Yan Ma, *Nanjing University of Information Science and Technology*
- 9AC.13 Probing Reaction Pathways of Organic Radicals in the Atmospheric Aqueous Phase.** LEXY LEMAR, Victoria Barber, Seamus Frey, Yaowei Li, Frank Keutsch, Jesse Kroll, *MIT*
- 9AC.14 Emission Verification for Ozone Precursors.** TRINITY OLGUIN, Gabrielle Cano, Pierre Herckes, Matthew Fraser,  
1:00 *Arizona State University*
- 9AC.15 Evolution of Atmospheric Brown Carbon in Wildfire Smoke Plumes during the 2019 FIREX-AQ and 2023 AEROMMA Field Campaigns.** JHAO-HONG CHEN, Umamaheshwara Rao Puttu, Robert J. Yokelson, Vanessa Selimovic, Nicholas Wagner, Joshua P. Schwarz, Han N. Huynh, Adam Ahern, Ming Lyu, Lu Xu, *Washington University in St. Louis*
- 9AC.16 Molecularly Resolved Composition of Ultra-Fine Particles in Aircraft Engine Exhaust Suggests Rapid Condensation of Lubrication Oil.** ZACHARY DECKER, Peter A. Alpert, Markus Ammann, Julien Anet, Michael Bauer, Tianqu Cui, Lukas Durdina, Jacinta Edebeli, Martin Gysel, André S. H. Prévôt, Lu Qi, Jay G. Slowik, Curdin Spirig, Sarah Tinorua, Florian Ungeheuer, Alexander Vogel, Jun Zhang, Benjamin Brem, *Laboratory of Atmospheric Chemistry, Paul Scherrer Institute*
- 9AC.17 The Impact of Structure on Alkane SOA Formation.** AZAD MADHU, Myoseon Jang, Yujin Jo, *University of Florida*  
1:00
- 9AC.18 Impact of Sulfur-Containing Groups on Aqueous-Phase OH Radical Oxidation – Atmospheric Implications for Small Organosulfur Compounds.** DONGER LAI, Thomas Schaefer, Yimu Zhang, Yong Jie Li, Sinan Xing, Hartmut Herrmann, Man Nin Chan, *The Chinese University of Hong Kong*
- 9AC.19 Gas-Particle Partitioning of Volatile Methyl Siloxane Oxidation Products in the New York City Airshed.** JOSIE  
1:00 WELKER, Jeewani Meepage, Saeideh Mohammadi, Christopher Brunet, Hanalei Lewine, Rachel Marek, Keri Hornbuckle, Eleanor Browne, Charles Stanier, Elizabeth Stone, *University of Iowa*
- 9AC.20 Modeling SOA Formation from Phenols Using an Updated Gas-Phase Mechanism and Revised SOA Parameters.** JIA JIANG, Samiha Binte Shahid, Yanyu Zhang, David R. Cocker III, William P. L. Carter, Kelley Barsanti, *University of California, Riverside*
- 9AC.21 Investigating the Aqueous Reaction of Vanillin with Nitrite under Dark Conditions – Kinetics and Brown Carbon Product Formation.** FARIDEH HOSSEINI NAROU EI, Shiqi Ian Wang, Emily Baer, Juliana Marston, Hanie Tamandani, Yi Rao, V. Faye McNeill, *Columbia University*

HALL 3

- 9AE.2 Superoxide Release from Macrophages upon Exposure to Biomass Burning Aerosols, Plastic Combustion PM, Secondary Organic Aerosols, and Brake Wear Particles.** KASEY EDWARDS, Rizana Salim, Ting Fang, Caitlyn Cruz, Sukriti Kapur, Sachin S. Gunthe, James Smith, Sergey Nizkorodov, Manabu Shiraiwa, *University of California, Irvine*  
1:00
- 9AE.3 Air Pollution mAnagement and interVentlon Tool foR IndiA (PAVITRA): Making a Case for Multi-Scale Multi-Sector Air Quality Management.** LUCAS ROJAS MENDOZA, Srinidhi Balasubramanian, Neeldip Barman, Yuzhou Wang, Julian Marshall, Chandra Venkataraman, Joshua S. Apte, *University of California Berkeley*  
1:00
- 9AE.4 Aerosol Resuspension from Firefighter Gear: A Potential Source of Firefighter Respiratory Exposure.** SHRUTI CHOUDHARY, Umer Bakali, Chitvan Killawala, Frank Pekora, Jonathan Robbins, Christopher Bator, Natasha Solle, Erin Kobetz, Alberto Caban-Martinez, Pratim Biswas, *University of Miami*  
1:00
- 9AE.5 Improved Indoor Air Quality in Vape Shops Associated With Business Pattern Shift: Impact of Tobacco Regulation in California.** HAOXUAN CHEN, Siri Langmo, Muchuan Niu, Yuan Yao, Yifang Zhu, *University of California, Los Angeles*  
1:00
- 9AE.6 Exposure to Particulate and Gaseous Pollutants Inside Vehicles Parked in Intense Heat.** MINSEOK KIM, June Young Park, Insung Kang, *The University of Texas at Arlington*  
1:00
- 9AE.7 Mercury Vapor Emission during Dental Amalgam Removal: A Comprehensive Assessment of Atmospheric Concentrations through Direct and Indirect Measurement Techniques.** JÉRÔME DEVOY, *French National Institute for Research and Safety, France*  
1:00
- 9AE.8 County-Level Influenza Risk Mapping: Assessing the Impact of PM<sub>2.5</sub> and Socioeconomic Factors.** SHRABANI TRIPATHY, Joseph V. Puthussery, Taveen Kapoor, Rajan K. Chakrabarty, *Washington University in St. Louis*  
1:00
- 9AE.9 Elucidating Industrial Pollution Impacts on Disadvantaged Neighborhoods of Santa Ana.** SUKRITI KAPUR, Jasmine Osei-Enin, Andrea Delgado, James Adams, Leonel Flores, Jose Rea, David Herman, José Arturo Jiménez Chávez, Celia Faiola, Manabu Shiraiwa, Andrea De Vizcaya Ruiz, Michael Kleinman, Jun Wu, Kathleen Johnson, Kim Fortun, *University of California, Irvine*  
1:00
- 9AE.10 Characterization of Airborne Metagenomics across Major United States Metropolitan Areas.** VIVIAN TAT, Kostiantyn Botnar, Sean Kinahan, Shanna A. Ratnesar-Shumate, Madison Farnsworth, Sarah Alnemrat, Justin Nguyen, David Kimmel, Hema Narra, Christine Tomlinson, George Golovko, Kamil Khanipov, *The University of Texas Medical Branch*  
1:00

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9AP AEROSOL PHYSICS VI: GENERAL

HALL 3

- 9AP.1 Integrating Ion-Mobility and MD Simulations with Enhanced Sampling Techniques to Characterize Gas-Phase Compaction of Protein Structures.** VIRAJ GANDHI, Carlos Larriba-Andaluz, *Purdue University*  
1:00
- 9AP.2 Influence of Drying Rate on Morphology of Laboratory Generated Sodium Chloride Aerosols.** NISHAN SAPKOTA, Rym Mehri, Timothy Sipkens, Steven Rogak, Joel Corbin, *University of British Columbia*  
1:00
- 9AP.3 Secondary Organic Aerosol from Reactions of Biomass Burning Phenolic Compounds with Nitrate Radicals (NO<sub>3</sub>) Can Be Highly Viscous and Even Glassy over a Wide Relative Humidity Range due to Limited Hygroscopicity.** SEPEHR NIKKHO, Bin Bai, Fabian Mahrt, Julia Zaks, Long Peng, Kristian Kiland, Pengfei Liu, Allan K. Bertram, *University of British Columbia*  
1:00
- 9AP.4 Simulation of Aerosol Flow in a Nose-only Inhalation Exposure System Using Ansys Computational Fluid Dynamics (CFD) Software.** SEONGGI MIN, Dong-Jin Yang, Jae-Hyun Kim, Gregory Pellar, Jinghai Yi, Susan Chemerynski, Steven Yee, Reema Goel, Pamela Roqué, Prabha Kc, *NCTR/FDA*  
1:00



**9AP.5 Measurements of the Physical Decay Rates of Aerosols in a Rotating Drum.** DEEPAK SAPKOTA, Hui Ouyang,  
1:00 *University of Texas at Dallas*

**9AP.7 Exploring Aerosol Properties and Boundary Structures Using the ArcticShark UAS: Insights from the Southern Great Plains.** FAN MEI, Qi Zhang, Jerome Fast, Mikhail Pekour, Christopher Niedeck, Zihua Zhu, Damao Zhang, Beat Schmid, Jason Tomlinson, Zezhen Cheng, Swarup China, Gourihar Kulkarni, Gregory W. Vandergrift, Nurun Nahar Lata, Susanne Glienke, Hardeep Mehta, Xena Mansoura, *Pacific Northwest National Laboratory*

**9AP.8 How Many ODEs are Required to Describe Multicomponent Aerosol Evaporation in Vapor-free Conditions?**  
1:00 ANDREY KHLYSTOV, *Desert Research Institute*

**9AP.9 Electron Microscopy Imaging of Lab-generated Aerosol Particles.** Amrita Chakraborty, Deepak Sapkota, Yuhui Guo, James Hu, Harris Xie, Ian Wu, Zhenpeng Qin, HUI OUYANG, *University of Texas at Dallas*

#### 9BA BIOAEROSOLS IV

##### HALL 3

**9BA.1 Bioaerosols and Water Respiratory and Gastrointestinal Viruses in Wastewater Treatment Plants.** ÉMIE LACHANCE, Arthur Ouradou, Salim Khaddouma, Marc Veillette, Émilie Bédard, Caroline Duchaine, *Université Laval*

**9BA.2 Viral Preservation with Saliva Mimicking Medium in Aerosols.** Brittany Humphrey, Matthew Tezak, Mia Lobitz, Anastasia Hendricks, Andres Sanchez, Jake Zenker, Steven Storch, Bryce Ricken, Ryan D. Davis, JESSE CAHILL, *Sandia National Laboratories*

**9BA.3 Viral Filtration Efficiency: Impact of Washing on Reusable Masks.** VINCENT BROCHU, Nathalie Turgeon, Marc Veillette, Caroline Duchaine, *Université Laval*

**9BA.4 Biological Collection Efficiency of a Condensation-Based Bioaerosol Sampler.** MOHAMMAD WASHEEM, Amin Shirkhani, William B. Vass, Sripriya Nannu Shankar, Nohhyeon Kwak, Jiayu Li, Z. Hugh Fan, John Lednický, Arantzazu Eiguren-Fernandez, Chang-Yu Wu, *University of Miami*

**9BA.5 Advancing Near-Real-Time Metabolic Profiling of Airborne Bacteria.** EMILY KRAUS, Bharath Prithiviraj, Jin Seo, Mark Hernandez, *University of Colorado Boulder*

**9BA.6 A Blueprint for the Use of Far-UVC to Suppress Airborne Transmission and Prevent Future Pandemics.**  
1:00 Richard Williamson, JAMES MONTAVON, Rose Hadshar, Harry Koos, Jacob Swett, *Blueprint Biosecurity*

**9BA.7 Novel Passive Sampler to Assess Personal Exposures to Airborne Biological Agents.** Taewon Han, GEDIMINAS MAINELIS, *Rutgers, The State University of New Jersey*

**9BA.8 Improving Water Condensation Bioaerosol Sampling Using a Concentrated Sample Inlet Flow.** DREW JONES, Mark Hernandez, Marina Nieto-Caballero, Sonia Kreidenweis, Shantanu Jathar, *Colorado State University*

**9BA.9 Isolating the UV222 Inactivation Responses of Common Airborne Allergens at Different Relative Humidity Levels.** MARK HERNANDEZ, *University of Colorado at Boulder*

**9BA.10 Bioaerosols and Occupational Hygiene in Agricultural Industries.** SHELLEY KIRYCHUK, Bernardo Predicala, Lifeng Zhang, James Dosman, Brooke Thompson, Alejandra Castillo Toro, Caroline Duchaine, *University of Saskatchewan*



**9BA.11 Microbial Composition Comparison of Bioaerosol Samples with Two Co-located Bioaerosol Samplers: Condensation Growth Tube Collector and Electret Filters.** MARINA NIETO-CABALLERO, Claudia Mignani, Thomas C. J. Hill, Kristen Otto, Jessica Metcalf, Paul DeMott, Mark Hernandez, Sonia Kreidenweis, *Colorado State University*

**9BA.12 Studying Production of Respiratory Epithelial Aerosols and Droplets (SPREAD).** Jessica Resnick, TERRENCE GARCIA, Benjamin Alvarez, Natalie Sebeck, Michael Schuit, *JHU/APL*

**9BA.13 NATO Technical Activity: Sequencing for Environmental Aerosol Background Monitoring.** Anna Anselmo, Markus Antwerpen, Maria Arevalo, Katharine Barr, Cory Bernhards, Radoslaw Bielawski, Anastasios Chanalaris, Matthew Clark, Marius Dybwad, Mats Forsman, Maria-Victoria Ortega-Garcia, Ulrich Gosewinkel, Ulrich Horn, Kamil Khanipov, SEAN KINAHAN, Lucas Krzowski, Richard Leggett, Claire Lonsdale, Ra'ad Mahmoud, James Marsay, Peter Rhodes, Shanna A. Ratnesar-Shumate, Abdoul Sare, Andreas Sjödin, et al., *DEVCOM Chemical and Biological Center*

**9BA.14 Competition between Local and Distant Sources Determining the Concentration of Warm Temperature Ice Nucleating Particles in the Boundary Layer.** Thomas C. J. Hill, SONIA KREIDENWEIS, Russell Perkins, Claudia Mignani, Leah Grant, Jessie Creamean, Paul DeMott, Carson Hume, Marina Nieto-Caballero, Kevin R. Barry, Noelle Bryan, Elizabeth Stone, Brian Heffernan, Teresa Feldman, Chamari Mampage, Janeshta Fernando, Drew Juergensen, *Colorado State University*

**9BA.15 Feasibility Study of BioTube: A Portable and Expandable Chamber for Passive Bioaerosol Sampling.** JENNA MYERS, Gediminas Mainelis, *Rutgers, The State University of New Jersey*

**9BA.16 Changes in the Airborne Microbiome during High Density Public Gatherings: A Case Study of Mardi Gras in 2024.** KAMIL KHANIPOV, Sarah Alnemrat, Vivian Tat, Kostiantyn Botnar, Sean Kinahan, Shanna A. Ratnesar-Shumate, Madison Farnsworth, Justin Nguyen, Matt Cochran, David Kimmel, Hema Narra, Christine Tomlinson, George Golovko, *The University of Texas Medical Branch*

#### 9CA CARBONACEOUS AEROSOLS III: MEASUREMENTS AND MODELING

HALL 3

**9CA.1 2-Methyltetrol Sulfate Oxidation by Hydroxyl Radical in Fog and Cloud Water Mimics and Its Implications for the Fate of Isoprene-Derived Secondary Organic Aerosol.** HALEY ROYER, Ashley Harrill, Cade Christensen, Yuzhi Chen, Zhenfa Zhang, Avram Gold, Andrew Ault, Barbara Turpin, Jason Surratt, *University of North Carolina at Chapel Hill*

**9CA.2 Chemical Aging of Semivolatile Secondary Organic Aerosol Sesquiterpene Products.** Christina N. Vasilakopoulou, Agata Błaziak, Damianos Pavlidis, Angeliki Matrali, Kalliopi Florou, Petro Uruci, SPYROS N. PANDIS, *University of Patras, Greece*

**9CA.3 Impact of HOMs on Ambient Monoterpene SOA Formation in a German Forest.** LAURENT POULAIN, Anke Mutzel, Yoshiteru Iinuma, Stefanie Richters, Dominik van Pinxteren, Martin Brüggemann, Andreas Held, Alfred Wiedensohler, Hartmut Herrmann, *Leibniz Institute for Tropospheric Research*

**9CA.4 Chemical Characterisation of Total Organic Carbon in PM10 Aerosols during a Festive Firework Event Using 1H NMR in Mumbai, India.** SHWETA SAKPAL, Avik Kumar Sam, Shreya Dubey, Harish C Phuleria, *Indian Institute of Technology, Bombay*

**9CA.5 AE36 Aethalometer: Performance Demonstration and Application of Black Carbon Index.** MARTIN RIGLER, Matic Ivančič, Bálint Alföldy, Irena Ježek Breclj, Asta Gregorič, *Aerosol d.o.o.*

**9CA.6 Interlaboratory Comparison of the Centrifugal Particle Mass Analyzer-Electrometer Reference Mass System (CERMS).** RYM MEHRI, Robert T. Nishida, Timothy Sipkens, Jason S. Olfert, Joel Corbin, Gregory Smallwood, *National Research Council Canada*

**9CA.7 Using an Unmanned Aerial Vehicle to Sample Aerosols in Wildfire Plumes.** JOHN RYAN HIMES, Christian Carrico, Manvendra Dubey, Jon Reisner, *New Mexico Institute of Mining and Technology*  
1:00

**9CA.8 Emission Inventories Underestimate Black Carbon in the Global South as Revealed by Comparison of Simulations with Measurements from a Globally Distributed Network.** YUXUAN REN, Randall Martin, Christopher Oxford, Dandan Zhang, Xuan Liu, Ann M. Dillner, Rajan K. Chakrabarty, Sina Hasheminassab, David Diner, Joshin Kumar, Valerie Viteri, *Washington University in St. Louis*  
1:00

**9CA.9 Capillary Condensation as an Unaccounted Pathway for Rapid Aging of Atmospheric Soot.** ELLA IVANOVA, Egor Demidov, Nicole Riemer, Gennady Gor, Alexei Khalizov, *New Jersey Institute of Technology*  
1:00

**9CA.10 Discrete Element Method Model for Restructuring of Soot Aggregates.** EGOR DEMIDOV, Gennady Gor, Alexei Khalizov, *New Jersey Institute of Technology*  
1:00

**9CA.11 Influence of Hydrogen Content on the Optical Properties of Carbonaceous Aerosols: Insights from Atomic Scale Simulations.** JOSHIN KUMAR, Gwan-Yeong Jung, Rohan Mishra, Taveen Kapoor, Rajan K. Chakrabarty, *Washington University in St. Louis*  
1:00

**9CA.12 Particle Light Absorption Closure Analysis: BC, Soluble BrC and Dark-BrC: Case Studies from FIREX-AQ and AEROMMA.** RUCHEN ZHU, Linghan Zeng, Han N. Huynh, Adam Ahern, Joshua P. Schwarz, Amy P. Sullivan, Rodney J. Weber, *Georgia Institute of Technology*  
1:00

**9CA.13 Evolution of Black Carbon upon Coating with Biomass Burning Organic Aerosol.** CHRISTIAN ESCRITT, Katrina Betz, Micah Miles, Elijah Schnitzler, *Oklahoma State University*  
1:00

**9CA.15 Predictive Analytics of Black Carbon in High-Concentration Region Using Machine Learning Models.** PRATIMA GUPTA, Pau Ferrer-Cid, Jose M. Barcelo-Ordinasb, Jorge Garcia-Vidal, Mar Viana, Mira L. Pöhlker, Ajit Ahlawat, *Indian Institute of Technology Delhi*  
1:00

**9CA.16 Evaluation of U.S. Residential Wood Burning Emission Estimates and Air Quality Modeling during the 2015 WINTER Campaign.** BENJAMIN MURPHY, Havala Pye, Karl Seltzer, Amara Holder, Joseph Martin, Ingrid George, Gabriel Isaacman-VanWertz, Amy P. Sullivan, Pedro Campuzano-Jost, Jose-Luis Jimenez, Madeleine Strum, *U.S. Environmental Protection Agency*  
1:00

**9CA.17 Light-absorption Properties of Secondary Organic Aerosol Emitted from Duff Burning.** MUHAMMAD ABDURRAHMAN, Rawad Saleh, *University of Georgia*  
1:00

**9CA.18 Formation of Aqueous SOA from Water-Soluble Gaseous  $\alpha$ -Pinene Oxidation Products and from Gases Emitted by Biomass Burning Emissions.** MATT ZARAGOZA, Sergey Nizkorodov, Annmarie Carlton, *University of California, Irvine*  
1:00

9CC AEROSOLS, CLOUDS AND CLIMATE III: LABORATORY AND FIELD DATA  
HALL 3

**9CC.1 Secondary Aerosol Formation Potential and Transportation of Air Pollution off the Coast of Southern California.** MINGHAO HAN, Bradley Ries, Dongli Wang, Alexander B. MacDonald, Roya Bahreini, Andrew Metcalf, Don Collins, *University of California, Riverside*  
1:00

**9CC.2 The Effects of Organic Solvents on the Water Uptake of Organic Aerosols.** Kotiba A. Malek, Nahin Ferdousi, Dewansh Rastogi, AKUA ASA-AWUKU, *University of Maryland, College Park*  
1:00

**9CC.3 An Initial Assessment of the Viscosity and Phase State of Wildfire Smoke Particles in the Stratosphere.** Allan K. Bertram, MEI FEI ZENG, Andreas Zuend, Daniel Murphy, Gregory Schill, *University of British Columbia*  
1:00

- 9CC.4 Vertical Profile of the Chemical Composition and Mixing State of Summertime Ambient Aerosols in the Southern Great Plains.** XENA MANSOURA, Zezhen Cheng, Gregory W. Vandergriff, Nurun Nahar Lata, Valentina Sola, Zhenli Lai, Ashfiqur Rahman, Jeffery Dhas, Zihua Zhu, Damao Zhang, Fan Mei, Swarup China, *Pacific Northwest National Laboratory*  
1:00
- 9CC.5 The role of supersaturation in tropical Atlantic marine boundary layer aerosol–cloud observations.** JERAMY DEDRICK, Christian Pelayo, Lynn M. Russell, Dan Lubin, Mark Miller, Johannes Mülmenstädt, *Scripps Institution of Oceanography*  
1:00
- 9CC.6 Vertical Transport of Ultrafine Aerosols during Deep Convection at the Southern Great Plains.** MANISHA MEHRA, Scott Giangrande, Jian Wang, Yang Wang, *University of Miami*  
1:00
- 9CC.7 Exploring Particle Dynamics: Preliminary Investigations in Wear Particle Measurement for Tire and Road Surfaces.** VOLKER ZIEGLER, Henrik Hof, Danilo Engelmann, Markus Barth, *Palas GmbH, Karlsruhe, Germany*  
1:00
- 9CC.8 Aircraft Observations of Ice Nucleating Particles in the Arctic and Sub-Arctic Boundary Layer and Free Troposphere.** RUSSELL PERKINS, Ryan Patnaude, Camille Mavis, Kevin R. Barry, Paul DeMott, Sonia Kreidenweis, Paquita Zuidema, Bart Geerts, Greg McFarquhar, Sebastian Schmidt, *Colorado State University*  
1:00
- 9CC.9 Confronting Structural Uncertainty in Aerosol Effects on Climate.** LAURA FIERCE, Jeffrey Johnson, Kadja Flore Gali, Joscelyne Guzman – Gonzalez, Payton Beeler, Will Cantrell, Rosa M. Fitzgerald, Matthew Dawson, Benjamin Murphy, Nicole Riemer, *Pacific Northwest National Laboratory*  
1:00
- 9CC.10 Aircraft Engine Particle Emissions during the 2023 NASA–Boeing ecoDemonstrator Field Measurements.** FRANCESCA GALLO, Steven Baughcum, Matthew Brown, William M Griffin, Carolyn Jordan, Michael Shook, Elizabeth Wiggins, Edward Winstead, Luke Ziemba, Richard Moore, *NASA Langley*  
1:00
- 9CC.11 Overview of the 2023 Boeing ecoDemonstrator Emissions Flight Test.** RICHARD MOORE, Steven Baughcum, Tiziana Braeuer, Matthew Brown, Andrew Freedman, Francesca Gallo, William M Griffin, Francisco Guzman, Jennifer Klettlinger, Richard Miake–Lye, Benjamin A. Nault, Daniel Sauer, Michael Shook, Gregory Smallwood, Christiane Voigt, Phil Whitefield, Elizabeth Wiggins, Edward Winstead, Luke Ziemba, 2023 Boeing ecoDemonstrator Explorer Science Team, *NASA*  
1:00
- 9CC.12 Splash–Plate Atomization as a Candidate Spraying Technique for Marine Cloud Brightening.** MARYAM SHAHRASEBI, Steven Rogak, *University of British Columbia*  
1:00
- 9CC.13 The Diverse Physicochemical Mixing State of Aerosol Particles during TRacking Aerosol Convection interActions Experiment (TRACER) Campaign.** ZIYING LEI, Seth Thompson, Bo Chen, Taylor Peña, Brianna Matthews, Ron Li, Anita Rapp, Christopher Nowotarski, Sarah D. Brooks, *University of Tennessee*  
1:00
- 9CC.14 Stratosphere and Troposphere Aerosol Exposure Studies (STAES).** ANDRES SANCHEZ, *Sandia National Laboratories*  
1:00
- 9CC.15 Organic Acids in Cloud Water, Aerosols, and Cloud Droplet Residuals at the Summit of Whiteface Mountain (WFM).** ARCHANA TRIPATHY, Christopher Lawrence, Haider Khwaja, Mirza M. Hussain, Elizabeth Yerger, Phil Snyder, Paul Casson, Rudra Patel, Sarah Lombardo, Lily Hammond, Richard Brandt, Scott McKim, William May, James Schlemmer, Dan Kelting, James Schwab, Sara Lance, *University at Albany*  
1:00

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9CE CHEMICALS OF EMERGING CONCERN IN AEROSOL: SOURCES, TRANSFORMATIONS, AND IMPACTS VII: POSTERS  
HALL 3

- 9CE.2 Oxidation of the Neonicotinoid Acetamiprid on Particles and Solids by OH Radicals: Top–Down versus Bottom–Up.** WEIHONG WANG, Xinke Wang, Lisa Wingen, Véronique Perraud, Barbara Finlayson–Pitts, *University of California Irvine*  
1:00

**9CE.3 Investigating Atmospheric Emissions of Nanoplastic Fibers from Residential Laundry Activities: A Study Using Aerosol Mass Spectrometry.** MICHAEL A.R. TAWADROUS, Alex K.Y. Lee, Arthur W. H. Chan, *University of Toronto*  
1:00

**9CE.4 Effect of Print Speed on Airborne Plastic Emissions from Fused Deposition Modeling 3D Printing.** JUSTIN MORROW, Alyssa Yerkeson, Xiangjing Gao, Jun Wang, *University of Cincinnati*  
1:00

**9CE.5 Understanding Microplastic Aerosols: Clouds, Precipitation, and Beyond.** ALEXANDRIA JOHNSON, Gouri Prabhakar, *Purdue University*  
1:00

**9CE.6 OH-initiated Heterogeneous Oxidation of Nanoparticles from Plastic Combustion.** LIN KONG, Hongru Shen, Alex K.Y. Lee, Arthur W. H. Chan, Man Nin Chan, *The Chinese University of Hong Kong*  
1:00

**9CE.9 Determination of Settling Velocity of Airborne Metal Debris.** WILLIAM CASPINO, Enrica Viparelli, Shamia Hoque, *University of South Carolina*  
1:00

**9CE.10 Analysis of Tire and Road Wear Particles Generated from a Microplastic Chamber.** ABBY AYALA, Rebecca Parham, Madeline Clough, Anne McNeil, Andrew Ault, *University of Michigan*  
1:00

**9CE.11 Laboratory Study of the Contribution of Phenolic Resin Thermal Degradation to Automotive Brake Emissions.** BERENICE ROJAS, Adam Thomas, Lisa Wingen, Madeline Cooke, Véronique Perraud, Barbara Finlayson-Pitts, James Smith, *University of California, Irvine*  
1:00

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9CM CONTROL AND MITIGATION II  
HALL 3

**9CM.1 Characterization of Dust Generated from Grinding Natural and Engineered Stones.** DREW THOMPSON, Chaolong Qi, *NIOSH*  
1:00

**9CM.2 Granular Bed Filter Model for Porous Filter Media.** JAE-HYUN PARK, Myong-Hwa Lee, *Kangwon National University, University of Miami*  
1:00

**9CM.3 Enhanced Particle Removal by Electro sprayed Charged Droplets in a Scrubber.** JOON YUB KIM, Myong-Hwa Lee, *Kangwon National University*  
1:00

**9CM.4 Optimized Structure of Nano-Micro Composite Filter for Increased Filter Lifetime.** MIN-SEON KWON, Myong-Hwa Lee, *Kangwon National University, University of Miami*  
1:00

**9CM.6 Collection Of Condensed Vapors from Biomass Slow Pyrolysis Processes.** Muhammad Wasiq Riaz, Andrea Facchin, Vincenzo Gentile, Cristian Torri, PAOLO TRONVILLE, *Politecnico di Torino*  
1:00

**9CM.7 Impacts of HVAC Cleaning on Energy Consumption and Supply Airflow: A Multi-Climate Evaluation.** NASIM ILDIRI, Mark Hernandez, *University of Colorado Boulder*  
1:00

**9CM.8 PIV Visualization of a Sinusoidal EHD Confinement Flow Induced by Variation in Ion Density for Electrostatic Particle Clustering.** MD EYASIN HOSSAIN, Eric Monsu Lee, *Northern Illinois University*  
1:00

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9CO COMBUSTION III: POSTERS  
HALL 3

**9CO.1 A New Framework for Modelling Wildfire Smoke Aerosol Concentration.** DAN BARTHAUX, Andreas Zuend, *McGill University*  
1:00

**9CO.2 Ground Based Studies to Evaluate the Impacts of Prescribed Burning on Production of Secondary Species.**

1:00 RIME EL ASMAR, Rodney J. Weber, Greg Huey, M. Talat Odman, David Tanner, *Georgia Institute of Technology*

**9CO.3 Performance and Uncertainty of Portable Emissions Measurement Systems (PEMS) in Laboratory and On-Road Tests for Improved Quantification of Vehicle Exhaust Particles.**

1:00 MOHSEN KAZEMIMANESH, Jorge Saturno, Kim Winther, Rasmus Pettinen, *National Physical Laboratory*

**9CO.4 Measuring Particulate Matter Emissions from Prescribed Fires across Colorado.**

ANNAMARIE GUTH, Marissa Dauner, Evan Coffey, Sean Benjamin, Peter Hamlington, Chad Hoffman, Michael Hannigan, *University of Colorado at Boulder*

**9CO.5 The Organic Acids Composition of Aerosols Originating from the Canadian Wildfires in College Park, MD.**

1:00 ESTHER OLONIMOYO, Martin Ahn, Dewansh Rastogi, Yue Li, Akua Asa-Awuku, *University of Maryland*

**9CO.6 Chemical Composition and Volatility of Phenol Photooxidation Products in the Presence of NOx.**

DAVID PANDO, Michelia Dam, Nga Lee Ng, *Georgia Institute of Technology*

**9CO.7 Carbon and Oxygen Volatility Distributions of Biomass Burning Organic Aerosols Undergoing Oxidation and Dilution.**

1:00 PURUSHOTTAM KUMAR, James Hurley, Nathan Kreisberg, Tianchang Xu, Braden Stump, Patricia Keady, Nga Lee Ng, Gabriel Isaacman-VanWertz, *Virginia Tech*

**9CO.8 The Impact of Combustion Efficiency on the Chemical Composition of Particle-Bound Organics from Residential Heating with Wood and Coal.**

1:00 PATRICK MARTENS, Hendryk Czech, Jürgen Orasche, Mika Ihalainen, Martin Sklorz, Olli Sippula, Ralf Zimmermann, *Desert Research Institute*

**9CO.10 Particulates from a Stoker Boiler Fueled by Alternative Fuels.**

MADIE HOLLE, Ibrahim Al-Naiema, Claire Meyer, Elizabeth Stone, *University of Iowa*

**9CO.11 Effect of Vehicular Electrification on Air Quality in Florida.**

SHREYA SAPKOTA DHAKAL, Prashant Shekhar, Haofei Yu, Marwa El-Sayed, *Embry-Riddle Aeronautical University*

9IM INSTRUMENTATION AND METHODS VIII: SAMPLING, GENERATION, FACILITIES

HALL 3

**9IM.1 Investigating Flow Characteristics and Particle Sampling in Drone Aerodynamics: A CFD Simulation Study.**

1:00 SREEKESH KOOKKAL, Suresh Dhaniyala, *Clarkson University*

**9IM.2 Bidimensional Charge Distribution of Compact and Fractal Aerosols in a Unipolar Charger.**

NISHAN SAPKOTA, Timothy Sipkens, Rym Mehri, Steven Rogak, Joel Corbin, *University of British Columbia*

**9IM.3 Development of a Low-cost Aerosol Concentrator for Bioaerosol Sampling.**

Francisco Romay, RYNE JUIDICI, Aaron Collins, David Y. H. Pui, *University of Minnesota*

**9IM.4 Evaluating a Cloud Chamber in Controlling Coagulation and Wall Losses at High Particle Loads.**

NEVIL FRANCO, Kyle Gorkowski, Katherine Benedict, *Los Alamos National Laboratory*

**9IM.5 Enhanced Chamber Wall Loss of Intermediate Volatility Polar Organic Compounds at High Water Vapor Concentrations.**

1:00 KENNETH S. DOCHERTY, Diya Yang, Olson David, Mohammed Jaoui, Michael Lewandowski, *U.S. Environmental Protection Agency*



- 9IM.6 Transmission Efficiency of Two Pumped Counterflow Virtual Impactors of the Same Kind for Cloud-aerosol Interactions Studies.** SHREYA JOSHI, Lynn Mazzoleni, Will Cantrell, Raymond Shaw, Simeon Schum, Thusitha Divisekara, Ian Helman, Gourihar Kulkarni, Timothy Onasch, Kyle Gorkowski, Arthur J. Sedlacek, Ogochukwu Enekwizu, Claudio Mazzoleni, *Michigan Technological University*  
1:00
- 9IM.7 A Novel Automated Sampler Designed for Improved Spatiotemporal Resolution of Volatile Organic Compound Measurements.** JACKSON RYAN, Paulus Bauer, Ana Luisa Santiago O. Vilela, Alejandra Hernández-Terán, María Rebolleda-Gómez, Celia Faiola, *University of California, Irvine*  
1:00
- 9IM.8 Improvements in Airborne Aerosol and Trace Gas Measurement Capabilities on the University of Wyoming's Next Generation King Air Research Aircraft.** ANNA ROBERTSON, Eric Beamesderfer, Matthew Burkhart, Bart Geerts, Nicholas Mahon, *University of Wyoming*  
1:00
- 9IM.9 Atmospheric Pressure Environmental (APE) Chamber for Chemical Imaging of Aerosol Samples Under Mimic Real-World Condition.** ZEZHEN CHENG, Yuzhi Chen, Alexander Smith, Andrey Liyu, Ashfiqur Rahman, Carter Bracken, Swarup China, Vimal Kumar Balasubramanian, Arunima Bhattacharjee, Nurun Nahar Lata, Qian Zhao, Alla Zelenyuk, Daniel Perea, *Pacific Northwest National Laboratory*  
1:00
- 9IM.10 Validity for Detecting DPF Failure by Measuring Particle Number in Tailpipe.** Kenta Hasegawa, HIROYUKI YAMADA, *Tokyo Denki University Graduate School*  
1:00
- 9IM.11 Design and Development of Nested Inlet for Sampling Stratospheric Aerosol (NISSA) for Effective Reduction of Turbulence in Aircraft Aerosol Measurements.** NAGARAJAN RADHAKRISHNAN, Sreekesh Kookkal, Suresh Dhaniyala, *Clarkson university*  
1:00
- 9IM.12 Exploring the Relationship Between Filter Loading Effect and Aethalometer Multiple Scattering Enhancement Factor C in an Urban Background Site.** ASTA GREGORIČ, Luca Ferrero, Matic Ivančič, Irena Ježek Breclj, Bálint Alföldy, Martin Rigler, *Aerosol d.o.o.*  
1:00
- 9IM.13 Low-Cost, In-Situ Surface Tension Measurements of Hanging Aerosol Mimic Droplets under Controlled Atmospheric Conditions.** BRUNO LOYOLA SAN MARTIN, Michael Haines, Tzu-An Kuan, Joseph Woo, *Lafayette College*  
1:00
- 9IM.14 Measuring VOCs and HOMs with a Single Instrument: Comprehensive Analysis of Complex Gas Mixtures by Multi-Pressure Chemical Ionization Mass Spectrometry.** HENNING FINKENZELLER, Aleksei Shcherbinin, Jyri Mikkilä, Jussi Kontro, Netta Vinkvist, Juha Kangasluoma, Matti P. Rissanen, *University of Helsinki*  
1:00
- 9IM.15 Method Optimization for the Measurement of Aerosol Particle Size Characterization from Heated Tobacco Products.** CHIH-HSIANG CHIEN, Matt Melvin, Weiling Li, Yezdi Pithawalla, *Altria Client Services LLC*  
1:00
- 9IM.16 Optimization of Liquid Level in a Condensation-based Bioaerosol Sampler for Efficient Sampling using Machine Learning.** Xiaohan Li, MOHAMMAD WASHEEM, Amin Shirkhani, Matthew D. Jansen, William B. Vass, Xing He, Bian Jiang, Z. Hugh Fan, Chang-Yu Wu, *University of Miami*  
1:00
- 9IM.17 Effects of Particle Phase State on the Measurement of Sea Spray Aerosol Composition Using Extractive Electro Spray Ionization Mass Spectrometry.** SAMANTHA KRUSE, Paul Tumminello, Alexia Moore, Christopher Lee, Kimberly Prather, Jonathan Slade, *University of California San Diego*  
1:00
- 9IM.18 Identifying Photocharring of Single Particles in an Aerosol Raman Hyperspectral Imaging Instrument.** MAXWELL FREEMAN, J. Alex Huffman, *University of Denver*  
1:00
- 9IM.19 Development of a Custom Aerosol Test Chamber and Stand-Off Chemical Aerosol System for Detection and Classification.** STEVEN PULLINS, Meredith Melendez, David Alburty, Darren Radke, Adam Luxon, Jonathan Mueller, Garrett Wendell, Miles Egan, Seth Henshaw, Deborah Hunka, *Leidos*  
1:00

**9IM.20 Trace Aerosol Signature Detection and Classification Using Standoff Quantum Cascade Laser Absorption Spectroscopy: Preliminary Forward Modeling Results from the IARPA PICARD Program.** MILES EGAN, Justin Maughan, Seth Henshaw, Jonathan Mueller, Adam Luxon, Vanessa Lynch, Steven Pullins, Garrett Wendell, David Alburty, Darren Radke, Meredith Melendez, Deborah Hunka, *Leidos*  
1:00

**9IM.21 A Wide Range, Multi-Angle, Light Scattering Device to Probe Hazardous Aerosol Particles.** RAIYA EBINI, Joshua Hubbard, Christopher M. Sorensen, Alex Brown, Joseph Zigmond, *Sandia National Laboratories*  
1:00

**9IM.22 Comparison of Physics-Based and Machine Learning Based Approach for Calibration of Low-cost Particulate Matter Sensors.** Brijal Prajapati, MANORANJAN SAHU, Chandra Venkataraman, Pratim Biswas, *Indian Institute of Technology Bombay*  
1:00

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9IP INDOOR AIR PURIFICATION TECHNOLOGIES, BEST PRACTICES, AND THEIR HEALTH IMPACTS II  
HALL 3

**9IP.1 New Particle Formation Driven by 222 nm Germicidal Ultraviolet Light.** MATTHEW GOSS, Jesse Kroll, *MIT*  
1:00

**9IP.2 Detection of and Protection from Extreme VOC "Spikes" Generated during Everyday Cooking, Cleaning, and Artistic Activities.** Sonam Devabhaktuni, Sathyaraj Devabhaktuni, DEVABHAKTUNI SRIKRISHNA, *Patient Knowhow, Inc.*  
1:00

**9IP.3 High Efficacy of Grignard Pure(TM), a Triethylene Glycol-Based Material, in Neutralizing Airborne Microbial Agents.** Grishma Desai, Jamie Balarashti, Gurusurthy Ramachandran, Emanuel Goldman, William Jordan, Etienne Grignard, GEDIMINAS MAINELIS, *Rutgers, The State University of New Jersey*  
1:00

**9IP.4 Indoor Air Quality Information to Optimize Ventilation Parameters.** CHETHANI ATHUKORALA, Suresh Dhaniyala,  
1:00 *Clarkson University*

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9RM REMOTE AND REGIONAL ATMOSPHERIC AEROSOL IV: CHARACTERIZATION AND PROPERTIES  
HALL 3

**9RM.2 Real-Time Monitoring and Sampling of Alpine Black and Brown Carbon from the Colorado Rockies.** STEVEN SHARPE, Catalina Botero-Carrizosa, Felipe Rivera-Adorno, Jay Tomlin, Nurun Nahar Lata, Zezhen Cheng, Erik Hulm, Swarup China, Ryan Moffet, Alexander Laskin, *Purdue University*  
1:00

**9RM.3 Observations of New Particle Formation and Growth in the Sonoran Desert.** KRISTEN CRAMER, Alex Guenther, James Smith, *University of California, Irvine*  
1:00

**9RM.4 Survey of Accumulation Mode Particulate Halogens (I, Br, Cl) over the Remote Atmosphere.** DONGWOOK KIM, Pedro Campuzano-Jost, Benjamin A. Nault, Douglas A. Day, Michael Cubison, Jack Dibb, Yuk Chun Chan, Lyatt Jaegle, Thomas Ryerson, Alessandro Franchin, Eric Apel, Rebecca Hornbrook, Alan Hills, Donald Blake, Lee Mauldin, Yandong Tong, Rainer M. Volkamer, Jose-Luis Jimenez, *University of Colorado, Boulder*  
1:00

**9RM.5 Regional Distributions of Atmospheric Emission, Concentration, and Deposition of Particulate Elements in the Canadian Athabasca Oil Sands Region.** LEIMING ZHANG, Abdulla Al Mamun, Irene Cheng, Fuquan Yang, Xin Qiu, *Environment and Climate Change Canada*  
1:00

**9RM.6 Global Simulations of Phase State and Equilibration Timescales of Secondary Organic Aerosols with GEOS-Chem.** REGINA LUU, Meredith Schervish, Nicole June, Samuel O'Donnell, Shantanu Jathar, Jeffrey R. Pierce, Manabu Shiraiwa, *University of California, Irvine*  
1:00

**9RM.7 Aerosol Characterization in the Arctic Region during Cold Air Outbreaks.** LINTONG CAI, Sunandan Mahant, Emma Weissburg, Anna Robertson, Jefferson Snider, Markus Petters, *University of California, Riverside*  
1:00

**9RM.8 Quantifying Sulfur and Bioaerosol Emissions from Sargassum Strandings in South Florida.** SHAHAR TSAMERET, 1:00 Nohhyeon Kwak, Brittany Mc Intyre, Rivka Reiner, Helena Solo-Gabriele, Jiayu Li, *University of Miami*

**9RM.9 A Comprehensive Study of Particulate Matter (PM) in the Environmental Justice (EJ) Community of Eastern Coachella Valley (ECV): Status Update and Preliminary Results.** JOSEPH SALAZAR, Yumeng Cui, Julia Montoya-Aguilera, Christopher Lim, Mohammad Sowlat, Steven Boddeker, Freyja Berg Lopez, Laura Saucedo, Cynthia Berg, Angela Haar, Stephen Dutz, James Rothchild, Eric Holden, Sina Hasheminassab, Matic Ivančič, Martin Rigler, Payam Pakbin, Andrea Polidori, Jason Low, *South Coast Air Quality Management District*

**9RM.10 Comparison of Aerosol Measurements from ASCENT Yellowstone Site with IMPROVE Data.** YINGJIE SHEN, 1:00 Shane Murphy, Elena Goodspeed, Roya Bahreini, Ann M. Dillner, Armistead G. Russell, Nga Lee Ng, *University of Wyoming*

**9RM.11 Sensitivity of Chemical-Transport Model Simulations of Wildfire Smoke to Fire Emission Inventories.** 1:00 KRUTHIKA KUMAR, Soroush Neyestani, Rawad Saleh, *University of Georgia*

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9SA SOURCE APPORTIONMENT III: MODELING  
HALL 3

**9SA.2 Assessing the Value of Each Instrumented CMAQ Model for Addressing Aerosol-related Policy Questions.** 1:00 SHANNON CAPPS, Jiachen Liu, Sergey Napelenok, Benjamin Murphy, Kirk Baker, Daven Henze, Armistead G. Russell, *Drexel University*

**Thursday 3:00 PM – 3:30 PM**  
**Coffee Break**

**Thursday 3:30 PM – 5:00 PM**  
**Session 10: Platform**

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10AC AEROSOL CHEMISTRY VII: ANTHROPOGENIC AEROSOLS  
BALLROOM B/C – Theodora Nah and Sining Niu, chairs

**10AC.1 Drivers of Perfluorocarboxylic Acid (PFCA) Gas-Particle Partitioning: Modeled Properties and Observational Constraints.** TREVOR VANDENBOER, Mayré Rodriguez Ramirez, Eric Vanhauwaert, Nasrin Dashti, Yashar Ebrahimi-Iranpour, Jessica Clouthier, Shira Joudan, Ye Tao, RenXi Ye, Cora Young, *York University*

**10AC.2 Evaporation-Induced Transformations in Volatile Chemical Product-Derived Secondary Organic Aerosols: Browning Effects and Alterations in Oxidative Reactivity.** LIYUAN ZHOU, Zhancong Liang, Yiming Qin, Chak K. Chan, *King Abdullah University of Science and Technology*

**10AC.3 Chemical Characterization of Photochemical Aging of Ship Particulate Matter Emissions – Determination of Marker Compounds and PAH Decay Rates.** SANDRA PIEL, Nadine Gawlitta, Deeksha Shukla, Ellen-Iva Rosewig, Hendryk Czech, Jürgen Schnelle-Kreis, Thorsten Streibel, Johannes Passig, Helena Osterholz, Jan Hovorka, Thomas Adam, Uwe Etzien, Bert Buchholz, Mika Ihalainen, Olli Sippula, Thomas Gröger, et al., Ralf Zimmermann, *Mass Spectrometry Centre;Rostock University/Helmholtz Munich*

**10AC.4 Elucidating the Mechanism on the Transition-Metal Ion-Synergetic-Catalyzed Oxidation of SO<sub>2</sub> with Implications for Sulfate Formation in Beijing Haze.** GEHUI WANG, *East China Normal University*

**10AC.5 Sulfate Formation in Incense Burning Particles: A Single-Particle Mass Spectrometric Study.** ZHANCONG LIANG, Liyuan Zhou, Rosemarie Ann Infante Cuevas, Xinyue Li, Chunlei Cheng, Mei Li, Rongzhi Tang, Ruifeng Zhang, Patrick Kwan Ho Lee, Alvin Chi Keung Lai, Chak K. Chan, *King Abdullah University of Science and Technology*

**10AC.6 Characteristics and Relevance of Method-defined Condensable Particulate Matter Formation from Major Stationary Sources.** PAUL VAN ROOY, Dave Nash, Jason Dewees, Peter Kariher, Walter Lin, Ned Shappley, *US EPA*  
4:45

10CA CARBONACEOUS AEROSOLS II: BROWN AND BLACK CARBON MORPHOLOGY, OPTICAL PROPERTIES, AND AGING  
*SAN MIGUEL* – Payton Beeler and Haofei Zhang, chairs

**10CA.1 Model Framework for the Evolving Shape of Compacting Soot Aggregates.** PAYTON BEELER, Joel Corbin, Laura Fierce, *Pacific Northwest National Laboratory*  
3:30

**10CA.2 Soot Restructuring in Condensation-Evaporation Cycles.** ALEXEI KHALIZOV, Ali Hasani, Egor Demidov, *New Jersey Institute of Technology*  
3:45

**10CA.3 Light-Absorbing Aerosol-Cloud Interactions.** SHREYA JOSHI, Lynn Mazzoleni, Will Cantrell, Raymond Shaw, Simeon Schum, Thusitha Divisekara, Ian Helman, Abu Sayeed Md Shawon, Kyle Gorkowski, Timothy Onasch, Arthur J. Sedlacek, Ogochukwu Enekwizu, Yangang Liu, Laura Fierce, Payton Beeler, Kadja Flore Gali, Swarup China, Nurun Nahar Lata, Gregory W. Vandergrift, Gourihar Kulkarni, Claudio Mazzoleni, *Michigan Technological University*  
4:00

**10CA.4 Reconciling Measured and Modeled Optical Properties of Black Carbon.** OGOCHUKWU ENEKWIZU, Egor Demidov, Arthur J. Sedlacek, Ernie R. Lewis, Alexei Khalizov, *Brookhaven National Laboratory*  
4:15

**10CA.5 Optical Properties of Laboratory-Synthesized Dark Brown Carbon Tar Balls.** SHU-WEN YOU, Prabhav Upadhyay, Zezhen Cheng, Guodong Ren, Taveen Kapoor, Joseph V. Puthussery, Benjamin Sumlin, Swarup China, Rohan Mishra, Rajan K. Chakrabarty, *Washington University in St. Louis*  
4:30

**10CA.6 Molecular Insights into Gas-Particle Partitioning and Viscosity of Atmospheric Brown Carbon.** QIAORONG XIE, Nealan Gerrebos, Diego Calderon-Arrieta, Isaac Morton, Emily Halpern, Chunlin Li, Janice Zeng, Yinon Rudich, Allan K. Bertram, ALEXANDER LASKIN, *Purdue University*  
4:45

10CE CHEMICALS OF EMERGING CONCERN IN AEROSOL: SOURCES, TRANSFORMATIONS, AND IMPACTS V: VOLATILE CHEMICAL PRODUCTS AND THEIR SOA FORMATION

*RUIDOSO/PECOS* – Alexandria Johnson and Jiachen Liu, chairs

**10CE.1 Production, Processes, and Parameters for Secondary Organic Aerosol from Oxygenated Volatile Organic Compounds Found in Volatile Chemical Products.** HUIYING LUO, Masoud Akbarzadeh, Abraham Dearden, Jamie Cast, Amel Ksaibati, Alison Piasecki, Ann M. Middlebrook, Lauren A. Garofalo, Delphine K. Farmer, Katelyn Rediger, Matthew Coggon, Carsten Warneke, Cort Zang, Tucker Melles, Audrey Lawrence, Megan Willis, Chelsea Stockwell, Lu Xu, Damien Ketcherside, Lu Tan, Lixu Jin, Lu Hu, Rebecca Schwantes, SHANTANU JATHAR, et al., *Colorado State University*  
3:30

**10CE.2 Impact of Glycol Ether Structure on OH-Initiated Oxidation and Resulting Aerosol Formation.** TUCKER MELLES, Audrey Lawrence, Cort Zang, Abraham Dearden, Katelyn Rediger, Huiying Luo, Masoud Akbarzadeh, Amel Ksaibati, Damien Ketcherside, Lu Tan, Matthew Coggon, Chelsea Stockwell, Lu Xu, Ann M. Middlebrook, Alison Piasecki, Lauren A. Garofalo, Carsten Warneke, Lu Hu, Delphine K. Farmer, Shantanu Jathar, Megan Willis, *Colorado State University*  
3:45

**10CE.3 Investigating SOA Formation from Volatile Methyl Siloxanes.** HANA LEI LEWINE, Jeewani Meepage, Saeideh Mohammadi, Carlos Gutierrez, Charles Stanier, Elizabeth Stone, Eleanor Browne, *University of Colorado Boulder & CIRES*  
4:00

**10CE.4 Temperature and Age-Dependent Secondary Aerosol Precursor Emissions from Building Materials and Consumer Products and Their Dynamics in Urban Aerosol.** EMILY FRANKLIN, Rose K Rossell, Cameron Osburn, Katelyn Rediger, Adam De Groot, Michael Vermeuel, Trey Maddaleno, Dylan Millet, Allen Goldstein, Delphine K. Farmer, *CSIRO Environment*  
4:15

**10CE.5 Secondary Organic Aerosol Formation Potential of Consumer Products Used Indoors.** SOFIE SCHWINK, Tony Hao, Maximilian Schmid, Marina Vance, *University of Colorado Boulder*  
4:30

**10CE.6 Application of the Hyperdual-step Method in the Community Multiscale Air Quality Model (CMAQ) for the Assessment of Aerosol Formation from Volatile Chemical Products (VCPs).** JIACHEN LIU, Shannon Capps, *Drexel University*  
4:45

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10IP INDOOR AIR PURIFICATION TECHNOLOGIES, BEST PRACTICES, AND THEIR HEALTH IMPACTS I  
LA CIENEGA – Bo Yang and Gediminas Mainelis, chairs

**10IP.1 Ozone and Secondary Organic Aerosol Production from a 222 nm Germicidal Lamp in the Presence of Scrubbers.** NADIA TAHSINI, Matthew Goss, Seamus Frey, Selena Zhang, M. Pang, Richard Williamson, Jesse Kroll, *MIT*  
3:30

**10IP.2 Large-scale Evaluation of Additive Air Cleaning Effects by Filtration and Ionization Against Infectious Aerosols.** KATHERINE RATLIFF, Lukas Oudejans, M. Worth Calfee, John Archer, Marc Carpenter, Jerome Gilberry, Robert Yaga, William Schoppman, *U.S. Environmental Protection Agency*  
3:45

**10IP.3 In-situ Effectiveness of Portable and Central Air Cleaners.** RAFSAN NAHIAN, Jeffrey Siegel, *University of Toronto*  
4:00

**10IP.4 2-Year Durability Comparison of HEPA vs MERV 16 vs MERV 13 Air Filters in DIY Air Cleaners Used Daily in Elementary and Middle Schools.** DEVABHAKTUNI SRIKRISHNA, *Patient Knowhow, Inc.*  
4:15

**10IP.5 Measurements and Modeling of Indoor Air Pollutants and Mitigation Scenarios in Older Educational Buildings.**  
4:30 JIANING BAO, Nigel Kaye, Ehsan Mousavi, Christopher Post, Andrew Metcalf, *Clemson University*

**10IP.6 Characterization of Particulate Matter in Multi-Zonal Residential Apartment: Transport, Exposure, and Mitigation.** ALOK KUMAR THAKUR, Sameer Patel, *Indian Institute of Technology Gandhinagar*  
4:45

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10RM REMOTE AND REGIONAL ATMOSPHERIC AEROSOL I: PHYSICOCHEMICAL PROPERTIES  
BALLROOM A – Shang Liu and Nicolas Buchenau, chairs

**10RM.1 Biologically Mediated Aerosol Precursor Emissions and Secondary Aerosol Formation along the Antarctic Ice Edge.** EMILY FRANKLIN, Caleb Mynard, Joel Alroe, Marc Mallet, Ruhi Humphries, Robert Strzpek, Erin Dunne, *CSIRO Environment*  
3:30

**10RM.2 Biogenic Volatile Nucleation Precursor Compound Fluxes from Pennsylvania Freshwater Lakes during 2023 Algal Bloom Season.** CHRISTINE TROLLER, Coty Jen, Jeffery Butt, Rick Spear, Jamie Detweiler, *Carnegie Mellon University*  
3:45

**10RM.3 The Impact of Planted Forests and Windbreaks on Reducing Dust Concentrations in Suburban and Urban Areas.** BORIS KRASOVITOV, Andrew Fominykh, Avi Levy, Itzhak Kutra, *Ben-Gurion University of the Negev, Israel*  
4:00

**10RM.4 Chemical Imaging of Biomass Burning Particles Present in the Summer Stratosphere.** STEVEN SHARPE, Felipe Rivera-Adorno, Temitope Olayemi, Yaowei Li, Xiaoli Shen, Ryan Moffet, John Dykema, Frank Keutsch, Daniel Cziczo, Alexander Laskin, *Purdue University*  
4:15



**10RM.5 Aerosol Enhancement in the Tropical Tropopause Layer.** SHANG LIU, Troy Thornberry, Pengfei Yu, Sarah Woods, 4:30 Karen Rosenlof, Ru-Shan Gao, *Northeastern University*

**10RM.6 Understanding the Impacts of Saharan Dust on Puerto Rico's Air Quality Using Air Sensors.** DANIEL 4:45 WESTERVELT, Andrea Belvis-Aquino, Hector Jimenez, *Columbia University*

10SA SOURCE APPORTIONMENT I: PARTICULATE MATTER  
*MESILLA* – Raghu Betha and Rachel Obrian, chairs

**10SA.1 Organic Aerosol Concentration, Composition, and Sources Analysis at Pretoria, South Africa Employing Fourier-Transform Infrared Spectroscopy (FT-IR) and Positive Matrix Factorization (PMF).** MUHAMMAD 3:30 NAVEED ANWAR, Satoshi Takahama, Christopher Oxford, Randall Martin, Adele L. Igel, Rebecca Garland, Ann M. Dillner, *University of California, Davis*

**10SA.2 Measurements of Airborne Fine Dust and Ultrafine Particles at a Seaport in Southern Italy.** VOLKER ZIEGLER, 3:45 Henrik Hof, Alessandra Genga, Tiziana Siciliano, Michele Gianelli, *Palas GmbH, Karlsruhe, Germany*

**10SA.3 Quantifying Biomass Burning Contributions to Winter Air Pollution in Interior Alaska.** SARAVANAN 4:00 KANAGARATNAM, Raghu Betha, Venky Shankar, *Texas Tech University*

**10SA.4 Deconvolution of Post-Detonation Mixtures of Soot.** MADELINE STRICKLIN, Ryan Farley, James E. Lee, Rachel 4:15 Huber, Allison Aiken, *Los Alamos National Laboratory*

**10SA.5 PM1 Concentrations and Sources in Kigali, Rwanda.** THEOBARD HABINEZA, Albert A. Presto, Allen Robinson, 4:30 *Carnegie Mellon University*

**10SA.6 Resolving Particle Size Distribution into Biomass and Fossil Fuel Sources in Subarctic Alaska.** LORENA 4:45 ALBUQUERQUE ZANANDREIS, Saravanan Kanagaratnam, Raghu Betha, *Texas Tech University*

## Thursday 5:00 PM – 6:30 PM Technical Program Committee Meeting (Jemez)

Friday

## Friday 8:00 AM – 9:15 AM Session II: Platform

11AC AEROSOL CHEMISTRY VIII: CHEMISTRY AT THE PARTICLE-AIR INTERFACE  
*BALLROOM B/C* – Marwa El-Sayed and Yijing Chen, chairs

**11AC.1 Ions from Solid Particle Surfaces: Probing Particle Surface Composition with Matrix-Assisted Ionization in Vacuum - Mass Spectrometry.** LISA WINGEN, Yiming Qin, Elizabeth Wingen, Cheyenne Begay, Véronique 8:00 Perraud, Styliani Consta, Michelia Dam, James Smith, Barbara Finlayson-Pitts, *University of California, Irvine*

**11AC.2 Interfacial Enrichment of Lauric Acid Assisted by Long-Chain Fatty Acids at Sea Spray Aerosol Surfaces Intrigues Climate-Relevant Properties.** MICKEY ROGERS, Abigail Dommer, Kimberly Carter-Fenk, Nicholas 8:15 Wauer, Patiemma Rubio, Aakash Davasam, Heather Allen, Rommie Amaro, *Pacific Northwest National Laboratory*

**11AC.3 Surface Crust Formation in SOA Leads to Reduced and Nearly Size-independent Evaporation.** MEREDITH 8:30 SCHERVISH, Jacqueline Wilson, ManishKumar Shrivastava, Alla Zelenyuk, Manabu Shiraiwa, *University of California, Irvine*

**11AC.4 Measuring the Surface Tension and Composition of Model "Electrospray" Microdroplets.** MICHAEL JACOBS,  
8:45 *Texas State University*

**11AC.5 The Uptake and Spontaneous Oxidation of HONO to Optically Tweezed Aerosol Droplets is Self-Accelerated by Aerosol Acidity.** Luke Monroe, GRAHAM THORNHILL, Jack Hall, Ryan Sullivan, *Carnegie Mellon University*  
9:00

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11AE AEROSOL EXPOSURE I

BALLROOM A – Jessica Tryner and Marina Vance, chairs

**11AE.1 Inequity of Exposure to Wildfire Smoke PM<sub>2.5</sub> in the United States.** JING LI, Xinlei Liu, Qiao Yu, Yifang Zhu,  
8:00 *University of California, Los Angeles*

**11AE.2 Microenvironmental Apportionment Explains Demographic Differences in PM<sub>2.5</sub> Exposure within a Rural Rwandan Biomass Burning Community.** KY TANNER, Maggie L Clark, Vincent Cleveland, Egide Kalisa, Christian L'Orange, Richard Mori, Theoneste Ntakirutimana, Casey Quinn, Christian Sewor, Kellin Slater, Jessica Tryner, Rebecca Witinok-Huber, Bonnie Young, John Volckens, *Colorado State University*  
8:15

**11AE.3 Personal Exposures to Fine Particulate Matter in Java, Indonesia Using Low-Cost Sensors.** MARINA VANCE,  
8:30 Bregas Budiando, Gito Immanuel, Hideki Nara, Shigeru Hashimoto, Yukio Terao, Rizaldi Boer, *University of Colorado Boulder*

**11AE.4 Personal Exposures to PM<sub>2.5</sub> by Microenvironment among Residents of California's Central Valley.** JESSICA  
8:45 TRYNER, Xiaoying Li, Luis Hernandez Ramirez, Bonnie Young, Sherry WeMott, Mollie Phillips, Grant Erlandson, Celine Campos, Daniel Dean, Nayamin Martinez, John Volckens, Sheryl Magzamen, *Colorado State University*

**11AE.5 Efficacy of a Novel Personal Nasal Sampler (PNS) in Capturing Particles and Viruses.** TAEWON HAN, Gediminas  
9:00 Mainelis, *Rutgers, The State University of New Jersey*

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11CC AEROSOLS, CLOUDS AND CLIMATE I: AEROSOL FUNDAMENTAL PROPERTIES AND IMPACTS ON CLOUDS

RUIDOSO/PECOS – Alison Bain and Coty Jen, chairs

**11CC.1 Aerosol-Induced Intensification of Temperature Maxima during a Mega Heatwave Event in India.** Arushi  
8:00 Sharma, CHANDRA VENKATARAMAN, Arpita Mondal, Manish Dhasmana, Dewashish Tiwari, *Indian Institute of Technology Bombay*

**11CC.2 Assessing the Removal of Particles by Precipitation and Quantifying Their Wet Deposition Rates.** CHRISTOS  
8:15 STAMATIS, Chenyang Bi, Gabriel Isaacman-VanWertz, *Virginia Tech*

**11CC.3 Investigating the Impact of Seawater Divalent Cations on the Surface Tension of Aerosol Containing Ionic Surfactants.** ALISON BAIN, Kunal Gosh, Konstantin Tumashevich, Nønne L. Prisle, Bryan R. Bzdek, *University of Bristol*  
8:30

**11CC.4 Optical Property and Hygroscopicity of Solid Strongly Absorptive Brown Carbon in Wildfire Smoke.** ZEZHEN  
8:45 CHENG, Amna Ijaz, ManishKumar Shrivastava, Daniel Veghte, Gregory W. Vandergriff, Kuo-Pin Tseng, Nurun Nahar Lata, Will Kew, Kaitlyn J. Suski, Johannes Weis, Gourihar Kulkarni, Larry Berg, Jerome Fast, Libor Kovarik, Lynn Mazzoleni, Alla Zelenyuk, Swarup China, *Pacific Northwest National Laboratory*

**11CC.5 Black Carbon Mixing State Evolution in Shallow and Deep Convective Wildfire Plumes.** MANVENDRA DUBEY,  
9:00 James E. Lee, Kyle Gorkowski, Ryan Farley, Katherine Benedict, Allison Aiken, Eunmo Koo, Jon Reisner, *Los Alamos National Laboratory*

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11CO COMBUSTION I: FLAME FUNDAMENTALS AND APPLICATIONS

LA CIENEGA – Claire Fortenberry and Chanakya Bagya Ramesh, chairs

**11CO.1 Results and Spacecraft Fire Safety Implications from the Saffire IV–VI Microgravity Combustion Experiments.**

8:00 CLAIRE FORTENBERRY, David Urban, John Easton, Justin Niehaus, *NASA Glenn Research Center*

**11CO.2 Soot Formation in a Laminar Non-Premixed Planar Mixing Layer Flame (PMLF) Fueled by Ethylene Doped with Iso-Dodecane.**

8:15 CHRISTIAN P. BJORK, Evangelos K. Stefanidis, Mahmoud K. Ashour, Scott W. Wagnon, Chiara Saggese, Francesco Carbone, *University of Connecticut*

**11CO.3 Highly Porous Carbon Blacks for Supercapacitors and Electrochemical Energy Storage.**

8:30 GEORGIOS A. KELESIDIS, Nicola Rossi, Ayca G. Senol, Christian Prehal, Sotiris E. Pratsinis, *Rutgers, The State University of New Jersey*

**11CO.4 TiO<sub>2</sub> and SiO<sub>2</sub> Formation in Corona Discharge Assisted Combustion.**

8:45 CHANAKYA BAGYA RAMESH, Daoru Han, Yang Wang, *University of Miami*

**11CO.5 Toxic Gas and Particle Emissions from Lithium-Ion Battery Fires.**

9:00 XIAOLIANG WANG, Matthew Claassen, Bjoern Bingham, Judith Chow, John Watson, Yan Wang, *Desert Research Institute*

11RM REMOTE AND REGIONAL ATMOSPHERIC AEROSOL II: NEW PARTICLE FORMATION

SAN MIGUEL – Hannah Kenagy and Christopher Kenseth, chairs

**11RM.1 Employing Machine Learning for New Particle Formation Identification and Mechanistic Analysis: Insights from the Six-Year Observation at the Southern Great Plains.**

8:00 WEIXING HAO, Fan Mei, Tirthankar Chakraborty, Yang Wang, *University of Miami*

**11RM.2 Seasonal Investigation of the Factors and Sources Contributing to Ultrafine Particles in the Eastern Amazon Rainforest.**

8:15 ADAM THOMAS, Deanna Myers, Hayley Glicker, Alex Guenther, James Smith, *University of California, Irvine*

**11RM.3 Upper Tropospheric Particle Formation by Stratospheric Air Intrusion.**

8:30 Jiaoshi Zhang, Xianda Gong, Ewan Crosbie, Glenn Diskin, Karl Froyd, Sam Hall, Agnieszka Kupc, Richard Moore, Jeff Peischl, Andrew Rollins, Joshua P. Schwarz, Michael Shook, Chelsea Thompson, Kirk Ullmann, Christina Williamson, Armin Wisthaler, Lu Xu, Luke Ziemba, Charles Brock, JIAN WANG, *Washington University in St. Louis*

**11RM.4 Small Particle Events over the Southeastern Atlantic Ocean.**

8:45 MARCUS BATISTA, Paquita Zuidema, Yang Wang, *University of Miami*

**11RM.5 New Particle Formation in the Kīlauea Volcanic Plume.**

9:00 HANNAH KENAGY, TREX 2023, TREX 2024, Susanne Hering, Jesse Kroll, *Massachusetts Institute of Technology*

11SA SOURCE APPORTIONMENT II: GAS-PHASE PRECURSORS AND HEALTH EFFECTS

MESILLA – Celia Faiola and Ogochukwu Enekwizu, chairs

**11SA.1 Chemical Composition and Source-Specific Toxicity of Ambient Particulate Matter in Riyadh, Saudi Arabia.**

8:00 ABDULMALIK ALTUWAYJIRI, Milad Pirhadi, Constantinos Sioutas, *University of Southern California*

**11SA.2 Advanced Source Apportionment for the Assessment of Exposure to Exhaust and Non-Exhaust PM in Health Effects Study.**

8:15 DAVID GREEN, Max Priestman, Anja Tremper, Ian (Gang) Chen, Klea Katsouyanni, Ian Mudway, James Scales, Hajar Hajmohammadi, Helen Wood, Christopher Griffiths, *Imperial College London*

**11SA.3 Enantiomeric Ratios and Stable Carbon Isotope Analysis of Limonene from Anthropogenic and Biogenic**

8:30 **Emission Sources.** SHAN GU, Nana Khundadze, Wentai Luo, Christoph Küppers, Avisá Charmchi, Kevin McWhirter, Todd Rosenstiel, James Pankow, Iulia Gensch, Celia Faiola, *University of California, Irvine*

**11SA.4 How COVID-19 Related Policies Reshaped Organic Aerosol Source Contributions in Central London.** IAN

8:45 (GANG) CHEN, Anja Tremper, Max Priestman, Anna Font, David Green, *Imperial College London*

**11SA.5 Understanding the Industrial Aerosol Contribution: Measurements and Modeling.** BRIANNA MATTHEWS,

9:00 Stephen Noble, *Savannah River National Laboratory*

**Friday 9:15 AM – 9:45 AM**

**Coffee Break**

**Friday 9:45 AM – 10:45 AM**

**Session 12: Platform**

12AC AEROSOL CHEMISTRY IX: NEW PARTICLE FORMATION

BALLROOM B/C – Michael Jacobs and Sandra Piel, chairs

**12AC.1 The Effects of Isoprene in Biogenic New Particle Formation in the Presence of SO<sub>2</sub>.** LEE TISZENKEL, Vignesh

9:45 Vasudevan Geetha, Shanhu Lee, *The University of Alabama in Huntsville*

**12AC.2 Diurnal and Seasonal Trends of Freshly Nucleated Sulfuric Acid Clusters Observed in Pittsburgh, PA.** DOMINIC

10:00 CASALNUOVO, Darren Cheng, Christine Troller, Coty Jen, *Carnegie Mellon University*

**12AC.3 Nucleation Closure Study from 2023 Pittsburgh Field Campaign.** DARREN CHENG, Dominic Casalnuovo,

10:15 Christine Troller, Coty Jen, *Carnegie Mellon University*

**12AC.4 Reaction of Methanesulfonic Acid with Multifunctional Amines Used in Carbon Capture and Storage**

10:30 **Technologies.** VÉRONIQUE PERRAUD, Patricia M. Morris, Cathy Wong, Paulus Bauer, Colleen Miller, James Smith, Barbara Finlayson-Pitts, *University of California, Irvine*

12AE AEROSOL EXPOSURE II

BALLROOM A – Amit Raysoni and Benjamin Werden, chairs

**12AE.1 An Airshed Approach to Mitigating Extreme PM<sub>2.5</sub> Levels in India.** NEELDIP BARMAN, Lucas Rojas Mendoza,

9:45 Yuzhou Wang, Srinidhi Balasubramanian, Julian Marshall, Joshua S. Apte, Chandra Venkataraman, *Indian Institute of Technology Bombay*

**12AE.2 PM<sub>1</sub> Risk in an Industrial Corridor in Louisiana.** BENJAMIN WERDEN, Benjamin A. Nault, Edward Fortner, Ellis

10:00 Robinson, Amira Yassine, Shivang Agarwal, Mina Tehrani, Andrea Chiger, Carolyn Gigot, Elizabeth Lunny, Joseph Roscioli, Scott Herndon, Tara Yacovitch, Ana Rule, Conner Daube, Thomas Burke, Megan Claflin, Kirsten Koehler, Keeve Nachman, Peter F. DeCarlo, *Johns Hopkins University*

**12AE.3 Characterization of Metals in Communities Surrounding Louisiana's Chemical Corridor During HAP-MAP**

10:15 **2023.** AMIRA YASSINE, Mina Tehrani, Edward Fortner, Shivang Agarwal, Ellis Robinson, Benjamin Werden, Benjamin A. Nault, Conner Daube, Megan Claflin, Andrea Chiger, Carolyn Gigot, Manjula Canagaratna, Scott Herndon, Tara Yacovitch, Thomas Burke, Kirsten Koehler, Keeve Nachman, Ana Rule, Peter F. DeCarlo, *Johns Hopkins University*

**12AE.4 Assessment of PM Emissions on Local Air Quality due to Specialty Minerals and Aggregate Processing**

10:30 **Industry in a Hispanic/Latino Neighborhood in Brownsville, TX, USA.** AMIT U. RAYSONI, Sai Deepak Pinakana, Juan Gonzalez, Gabriel Ibarra-Mejia, Daniel Jaffe, *The University of Texas Rio Grande Valley*



12CC AEROSOLS, CLOUDS AND CLIMATE II: AEROSOL PHYSICOCHEMICAL PROPERTIES AND ICE  
RUIDOSO/PECOS – Zezhen Cheng and Maria Zawadowicz, chairs

**12CC.1 The Role of Organic Nitrogen for Aerosol Solubility, Phase Separation and CCN Activity.** NAHIN FERDOUSI,  
9:45 Kotiba A. Malek, Kanishk Gohil, Kiran Reddy Pitta, Tim Raymond, Dabrina Dutcher, Miriam Freedman, Akua Asa-  
Awuku, *University of Maryland, College Park*

**12CC.2 Quantifying the Effects of Phase State on the Ice Nucleation Abilities of Organic Aerosols.** Xiaohan Li, Martin  
10:00 Wolf, Xiaoli Shen, Isabelle Steinke, Zhenli Lai, Sining Niu, Swarup China, ManishKumar Shrivastava, Zhenfa Zhang,  
Avram Gold, Jason Surratt, Daniel Czicz, Susannah Burrows, YUE ZHANG, *Texas A&M University*

**12CC.3 Arctic Ice Fog: Unveiling the Role of Aerosol Chemistry.** NURUN NAHAR LATA, Ismail Gultepe, Harindra Joseph  
10:15 Fernando, Darielle Dexheimer, Zezhen Cheng, Fan Mei, Swarup China, *Pacific Northwest National Laboratory*

**12CC.4 Hygroscopicity Prediction Impacted by Particle Mixing in Sub-urban Environment (HIMS).** SHRAVAN  
10:30 DESHMUKH, Laurent Poulain, Birgit Wehner, Silvia Henning, Jean-Eudes Petit, Olivier Favez, Hartmut Herrmann,  
Mira L. Pöhlker, *Leibniz Institute for Tropospheric Research, Leipzig, Germany*

12CM CONTROL AND MITIGATION I  
SAN MIGUEL – Christine McCool and David Cocker, chairs

**12CM.1 The Potential Efficacy of Double Masking.** PETER CHEA, Buddhi Pushpawela, Ryan X. Ward, Richard Flagan,  
9:45 *California Institute of Technology*

**12CM.2 Airborne Transmission and Mitigation in Indoor Environment: Insights from the COVID-19 Pandemic.** Sunil  
10:00 Kumar, Meiyi Zhang, JOHN CATE, Hunter Welch, Maria King, *Texas A&M University*

**12CM.3 PIV Characterization of a Large-Scale EHD Vortex Confinement Flow in a Wire-to-plate ESP for Electrostatic  
10:15 Particle Clustering.** SANJAY DANGI, Eric Monsu Lee, *Northern Illinois University*

**12CM.4 Reduction of Aerosols Generated from the Dental Handpiece.** Ting-Yin Ji, Chih-Yung Wu, Yung-Chung Chen,  
10:30 Chun-Juei Chou, MING-YENG LIN, *National Cheng Kung University*

12CO COMBUSTION II: BIOMASS COMBUSTION  
LA CIENEGA – Andrew Grieshop and Christian Carrico, chairs

**12CO.1 Utilizing Fire Radiative Energy to Predict Organic Carbon and Elemental Carbon Emissions from Burns under  
9:45 Simulated Prescribed-fire and Wildfire Conditions.** ROBERT PENLAND, Chase Glenn, Omar El Hajj, Anita Anosike,  
Kruthika Kumar, Steven Flanagan, Mac A. Callahan, E. Louise Loudermilk, Joseph O'Brien, Rawad Saleh,  
*University of Georgia*

**12CO.2 Comparative Assessment of Organic Aerosols from Biomass Combustion Based on Controlled Laboratory  
10:00 Studies vs Field Studies Using the Example of Sugar Cane Combustion.** Elena Hartner, THOMAS GRÖGER,  
Nadine Gawlitta, Sandra Piel, Hendryk Czech, Genna-Leigh Geldenhuys, Jürgen Orasche, Petri Tiitta, Pasi Yli-  
Pirilä, Miika Kortelainen, Patricia Forbes, Olli Sippula, Thomas Adam, Ralf Zimmermann, *Helmholtz Zentrum  
München and University of Rostock*

**12CO.3 Controlling Factors for Smoke Emissions from Urban and Wildland Fuels.** CHRISTIAN CARRICO, John Ryan  
10:15 Himes, Sabina Gulick, Allison Aiken, Katherine Benedict, Kyle Gorkowski, James E. Lee, Alexander Josephson, Jon  
Reisner, Manvendra Dubey, *New Mexico Institute of Mining and Technology*



**12CO.4 In-Field Emissions from Pellet-Fed Gasifier Stoves in Urban Zambia.** Stephanie Parsons, ANDREW GRIESHOP,  
10:30 *North Carolina State University*

12RM REMOTE AND REGIONAL ATMOSPHERIC AEROSOL III: LIGHT-ABSORBING PARTICLES

MESILLA – Andrew Metcalf and Yue Zhang, chairs

**12RM.1 New Methodology for Deriving Super-micron Sea Salt Aerosol Number and Flux Values Using Doppler Lidar Measurements.** Tyas Pujiastuti, NICHOLAS MESKHIDZE, Markus Petters, *North Carolina State University*  
9:45

**12RM.2 Strongly Absorbing Aerosol Refractive Indices in the Highly Polluted Indo-Gangetic Plains.** TAVEEN KAPOOR,  
10:00 Harish C Phuleria, Benjamin Sumlin, Nishit Shetty, Gupta Anurag, Mahak Bansal, Sandeep Duhan, Shahzar Khan,  
Jitender Laura, Pooja Manwani, Rajan K. Chakrabarty, Chandra Venkataraman, *Washington University in St. Louis*

**12RM.3 Biomass Burning Black Carbon Properties during the G-WISE Campaign using the Single Particle Soot Photometer (SP2).** JOHN ALLEN, Ryan Poland, Zachary McQueen, Dongli Wang, Andrew Metcalf, Joseph O'Brien, Rawad Saleh, Geoffrey Smith, *University of Georgia*  
10:15

**12RM.4 Aerosol Properties, Origins, and Impacts within Complex Mountainous Terrain in the Upper Colorado River Basin.** ALLISON AIKEN, Abu Sayeed Md Shawon, Katherine Benedict, Leah Gibson, Paul DeMott, Sonia Kreidenweis, James Smith, Jiwen Fan, Jessie Creamean, Russell Perkins, Darielle Dexheimer, Swarup China, Fan Mei, Gregory W. Vandergrift, Zezhen Cheng, Daniel Feldman, *Los Alamos National Laboratory*  
10:30

## Friday 11:00 AM – 12:30 PM Plenary IV

11:00 **A Perspective on Bioaerosol Research: Interdisciplinary Bridges Connecting Pollen, Pandemics, and Precipitation** Alex Huffman, *Denver University*

**Moderator** Joshua Santarpia, *University of Nebraska Medical Center*

12:00 **Student Poster and Oral Platform Competition Award Presentation** Raghu Betha, Shannon Capps, *Texas Tech University, Drexel*

12:05 **Fine Particle Arts Competition Award Presentation** Ricardo Morales, *Universidad de los Andes*

12:10 **Juan Fernandez de la Mora Prize Announcement** Maria Zawadowicz, *Brookhaven National Laboratory*

12:15 **Concluding Remarks and Preview for 2025** Shanna Ratnesar-Shumate and Jason Surratt, *US EPA & University of Miami, University of North Carolina Chapel Hill*

## Friday 12:30 PM – 4:00 PM AAAR Board of Directors Meeting (Isleta)