

## 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 3:00 PM - 4:45 PM  
Tutorials IV

Monday 2:00 PM - 4:30 PM  
AAAR Executive Committee Meeting

Monday 5:00 PM - 6:00 PM  
Science Communication Program (Ballroom)

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

Monday 7:00 PM - 8:30 PM  
Trivia Night with AAAR, presented by "Geeks Who Drinks" (Ballroom)

## Tuesday

Tuesday 7:00 AM - 8:00 AM  
Committee Meetings I - Awards (F152), Endowment (D136), Internet (D135)

Tuesday 8:00 AM - 9:15 AM  
Plenary I & Awards

8:00 **Welcoming Remarks** Andy Grieshop, Conference Chair, *North Carolina State University*

8:05 **Friedlander Lecture: Particle-Resolved Modeling: A Bridge between Scales in Aerosol Science** Nicole Riemer, *University of Illinois at Urbana-Champaign*

**Moderator** Donald Dabdub, *University of California, Irvine*

9:00 **Friedlander and Hering Award Presentations, Announcement of 2023 AAAR Fellows** Kelley Barsanti, Spyros Pandis, *National Center for Atmospheric Research, University of Patras*

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

Tuesday 9:15 AM - 9:45 AM  
Coffee Break with Exhibitors

Tuesday 9:45 AM - 11:30 AM  
Technical Session 1: Platform

- 1AP.1 Surface Tension and Phase Transitions of Sea Spray Systems Using Microfluidics.** CARI DUTCHER, Priyatanu Roy, Margaret House, *University of Minnesota*  
9:45
- 1AP.2 The Drying Kinetics and Crystallisation of Multi-Component Droplets.** BARNABY MILES, Lukesh Mahato, Daniel Hardy, Spyridon Varlas, Steven P. Armes, Rachael E.H. Miles, Jonathan P. Reid, *University of Bristol*  
10:00
- 1AP.3 Light-Absorbing Aerosol-Cloud Interactions.** SHREYA JOSHI, Claudio Mazzoleni, Lynn Mazzoleni, Will Cantrell, Raymond Shaw, Simeon Schum, Thusitha Divisekara, Ian Helman, Abu Sayeed Md Shawon, Kyle Gorkowski, Timothy Onasch, Arthur J. Sedlacek, Yangang Liu, Laura Fierce, Swarup China, Nurun Nahar Lata, Gourihar Kulkarni, *Michigan Technological University*  
10:15
- 1AP.4 The Impact of Inelastic Collisions on the Mean Free Path in Air.** DIMITRIOS TSALIKIS, Vlas Mavrantzas, Sotiris Pratsinis, *ETH Zurich, Switzerland*  
10:30
- 1AP.5 Particle Tracking in Turbulent Transonic Flow Field.** SREEKESH KOOKKAL, Suresh Dhaniyala, *Clarkson University, Potsdam, NY*  
10:45
- 1AP.6 The Bidimensional Size and Charge Distribution of Sub- and Supermicrometer Particles in an Electrostatic Precipitator.** JOSÉ MORÁN, Li Li, Hui Ouyang, Yuechen Qiao, Bernard Olson, Christopher J. Hogan, *University of Minnesota*  
11:00
- 1AP.7 Effects of Dilution on Biomass Burning Aerosol: Evaporation of Primary Organic Aerosol (BBPOA) and Subsequent Formation of Secondary Organic Aerosol (BBSOA).** TIANCHANG XU, Nara Shin, Yutong Liang, Bin Bai, Dongli Wang, John Allen, Ryan Poland, Zachary McQueen, Omar El Hajj, Chase Glenn, Kruthika Kumar, Anita Anosike, Joseph O'Brien, Andrew Metcalf, Geoffrey Smith, Rawad Saleh, Pengfei Liu, Nga Lee Ng, *Georgia Institute of Technology*  
11:15

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1CO COMBUSTION I: SOOT FORMATION, MORPHOLOGY, AND EMISSIONS

PORTLAND BALLROOM – Georgios Kelesidis and Una Trivanovic, chairs

- 1CO.1 A Planar Mixing Layer (PML) Configuration to Perform Spatially Resolved High-Resolution Differential Mobility Analysis (HR-DMA) in Diffusion Flames.** Mahmoud Ashour, FARNAZ KHOSRAVI, Francesco Carbone, *University of Connecticut*  
9:45
- 1CO.2 Secondary Organic Aerosol Formation Potential of Toluene and Products of Toluene Combustion.** ANITA ANOSIKE, Omar El Hajj, Chase Glenn, Nicholas Dewey, Brandon Rotavera, Rawad Saleh, *University of Georgia*  
10:00
- 1CO.3 High-Temperature Hydrocarbon Clustering and Particle Inception.** HOPE MICHELSEN, James Rundel, Ray Bambha, Judit Zádor, K. Olof Johansson, Paul Schrader, Kevin R. Wilson, *University of Colorado, Boulder*  
10:15
- 1CO.4 Rapid Assessment of Jet Engine-Like Soot from Jet-A1 and Sustainable Aviation Fuels Made by a Spray Flame.** Jason Scott, TIMOTHY SIPKENS, Rym Mehri, Gregory Smallwood, Mohammad Reza Kholghy, *National Research Council Canada*  
10:30
- 1CO.5 Soot Size Distribution & Structure during Enclosed Spray Combustion of Jet Fuel.** UNA TRIVANOVIC, Georgios A. Kelesidis, Sotiris Pratsinis, *ETH Zurich, Switzerland*  
10:45
- 1CO.6 Eliminating Soot Emissions from Jet Fuel Combustion.** GEORGIOS A. KELESIDIS, Amogh Nagarkar, Una Trivanovic, Sotiris Pratsinis, *Rutgers, The State University of New Jersey*  
11:00
- 1CO.7 Continued Role of Oil and Sulfur in Ground-based Aircraft Engine Particle Emissions during the Boeing ecoDemonstrator 2022 Measurements.** BENJAMIN A. NAULT, Andrew Freedman, Edward Fortner, Bruce Anderson, Steven Baughcum, Matthew Brown, Josh DiGangi, Francisco Guzman, Jennifer Klettlinger, Kevin Sanchez, Michael Shook, Gregory Smallwood, Elizabeth Wiggins, Edward Winstead, Luke Ziembra, Richard Miake-Lye, Richard Moore, *Aerodyne Research, Inc.*  
11:15
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## 1HA HEALTH RELATED AEROSOLS I: CELLULAR EXPOSURE AND TOXICITY

E145/146 – Manabu Shiraiwa and Ka Yuen Cheung, chairs

- 1HA.1 Evaluating Inflammatory Responses of Naphthalene Secondary Organic Aerosol (SOA).** SEONGBIN JO, Liang-Hsin Chen, 9:45 Shuichi Takayama, Nga Lee Ng, *Georgia Institute of Technology*
- 1HA.2 Cellular and Molecular Toxicity of Atmospherically Aged Anthropogenic and Biogenic Aerosols in an Epithelial-Endothelial Coculture Using Adverse Outcome Pathways as Risk Assessment.** SVENJA OFFER, Sebastiano Di Bucchianico, Hendryk Czech, Michal Pardo, Rasha Alsaleh, Christian Kersch, Simone Schmitz-Spanke, Yinon Rudich, Ralf Zimmermann, AeroHealth Team, *Helmholtz Zentrum München*
- 1HA.3 Combustion Conditions Influence Physicochemical Properties and Cytotoxicity of Flame-Generated Soot to Ocular (ARPE-19) and Lung (A549) Cells.** DHRUV MITROO, Durgesh Das, Paul Hamilton, Benjamin Kumfer, Nathan Ravi, *Veterans Research and Education Foundation*
- 1HA.4 The Effect of Atmospheric Aging on the Toxicity of Bare and Coated Soot Particles.** YINON RUDICH, Michal Pardo, 10:30 Hendryk Czech, Svenja Offer, Sebastiano Di Bucchianico, Astrid Kiendler-Scharr, Ralf Zimmermann, AeroHealth Team, *Weizmann Institute of Science*
- 1HA.5 Impact of Electronic Cigarette Settings on Primary and Secondhand Aerosol-Induced Toxicity: Evaluating Cell Survival and Membrane Stability.** KAPIAMBA KASHALA FABRICE, Hsin-Yin Chuang, Weixing Hao, Lung-Chi Chen, Yue-Wern Huang, Yang Wang, *University of Miami*
- 1HA.6 Assessing the Respiratory Toxicology of E-cigarette Aerosols under Real-Use Patterns and Exposure Doses Using an Artificial Lung System.** HAOXUAN CHEN, Airi Harui, Yu Feng, Michael D. Roth, Yifang Zhu, *University of California, Los Angeles*
- 1HA.7 Development of a High-throughput Cellular Analysis Platform for Monitoring Particulate Matter Toxicity.** ANNA 11:15 KAEHR, Fobang Liu, Guillaume Aubry, Hang Lu, Nga Lee Ng, *Georgia Institute of Technology*

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## 1IM INSTRUMENTATION AND METHODS I: CHEMICAL INSTRUMENTATION

F150 – Pedro Campuzano-Jost and Claudio Mazzoleni, chairs

- 1IM.1 Detection of Refractory and Nonrefractory Aerosol Mixtures Using the Dual-Vaporizer Configuration of the Soot Particle Aerosol Mass Spectrometer (SP-AMS).** ANITA AVERY, Leah Williams, Edward Fortner, Timothy Onasch, *Aerodyne Research, Inc.*
- 1IM.2 Evaluation of Uncertainties and Introduction of Tools for Quantification of Bulk Particle-phase Organic Nitrates Using Real-time Aerosol Mass Spectrometry.** DOUGLAS A. DAY, Benjamin A. Nault, Pedro Campuzano-Jost, Jose-Luis Jimenez, *CIRES, University of Colorado, Boulder*
- 1IM.3 Role of Relative Humidity in Controlling Ion Yields in Droplet Assisted Ionization.** JOSHUA HARRISON, Kelvin Risby, 10:15 Thomas Hilditch, Jim Walker, Bryan R. Bzdek, *University of Bristol*
- 1IM.4 In Situ Chemical Characterization of Nanoplastic Particles by Aerosol Mass Spectrometry.** Michael Tawadrous, Xing 10:30 Wang, Alex K.Y. Lee, ARTHUR W. H. CHAN, *University of Toronto*
- 1IM.5 Direct Determination of Melting Temperatures for Individual, Sub-Micron Isoprene Epoxydiol-Derived Secondary Organic Aerosol Particles.** KATHERINE KOLOZSVARI, Cara Waters, Alison Fankhauser, N. Cazimir Armstrong, Jin Yan, Madeline Cooke, Yao Xiao, Rebecca Parham, Zhenfa Zhang, Avram Gold, Jason Surratt, Andrew Ault, *University of Michigan*
- 1IM.6 Vapor Phase Transmission Electron Microscopy: Visualization Tool for In-Situ Aerosol Phenomena.** DEWANSH RASTOGI, 11:00 Yuhang Wang, Kotiba A. Malek, Akua Asa-Awuku, Taylor J. Woehl, *University of Maryland College Park*

**11M.7 Volatility Measurements of Individual Components of Biomass Burning Organic Aerosol.** QIAORONG XIE, Yun-Jung Hsu, 11:15 Pooja Chaudhary, Diego Calderon-Arrieta, Emily Halpern, Christopher P. West, Katherine Hopstock, Sergey Nizkorodov, Chunlin Li, Yinon Rudich, Baerbel Sinha, Alexander Laskin, *Purdue University*

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1SS SYMPOSIUM: AEROSOLS SPANNING SPATIAL SCALES I

F151 – Pawan Gupta and Yaowei Li, chairs

**1SS.1 Atmospheric Science and Chemistry mEasurement NeTwork (ASCENT): Advanced, Ground-based Aerosol Measurement Network Across the U.S..** NGA LEE NG, Ann Dillner, Roya Bahreini, Armistead G. Russell, Alison Fankhauser, 9:45 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, Shan Zhou, *Georgia Institute of Technology*

**1SS.2 Advancing Aerosol Research with the Next Generation Multiscale Infrastructure for Chemistry and Aerosols (MUSICA) and High-resolution Measurement Networks.** ALMA HODZIC, Wenfu Tang, Duseong Jo, Roya Bahreini, Mary Barth, Matthew Dawson, Ann Dillner, Nga Lee Ng, Armistead G. Russell, Simone Tilmes, *National Center for Atmospheric Research*

**1SS.3 Continental-Scale Biosphere - Atmosphere Interactions in Boreal Environment.** TUUKKA PETÄJÄ, Ekaterina Ezhova, Meri 10:15 Rätty, Dmitri Moisseev, Veli-Matti Kerminen, Jaana Bäck, Harri Kokkola, Tero Mielonen, Taina Yli-Juuti, Annele Virtanen, Markku Kulmala, *University of Helsinki*

**1SS.4 SOA Mass Formed via Multiphase Reactions of Hydrocarbons over the United States using CAMx-UNIPAR.** YUJIN JO, 10:30 Myoseon Jang, Azad Madhu, Jiwon Choi, Sanghee Han, *University of Florida*

**1SS.5 When Smoke Goes Up, PM Goes Down: Biomass Burning Plume Injection Height Effects on Observation Agreement, Surface PM<sub>2.5</sub>, and Radiative Forcing.** NICOLE JUNE, Jeffrey R. Pierce, *Colorado State University*

**1SS.6 Understanding New Particle Formation and Growth during the HI-SCALE 2016 Field Campaign over the Southern Great Plains (SGP) Region.** MANISHKUMAR SHRIVASTAVA, Jie Zhang, Rahul Zaveri, Bin Zhao, Alla Zelenyuk, John Shilling, Jerome Fast, Brian Gaudet, Jeffrey R. Pierce, Havalala Pye, Benjamin Murphy, *Pacific Northwest National Laboratory*

**1SS.7 Submicron Aerosol Spatial Variation in the Kathmandu Valley, Nepal 2018.** BENJAMIN WERDEN, Michael R. Giordano, 11:15 Khadak Mahata, Douglas Goetz, Md. Robiul Islam, Siva Praveen Puppala, Arnico Panday, Robert J. Yokelson, Elizabeth Stone, Peter F. DeCarlo, *Aerodyne Research, Inc.*

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1UA URBAN AEROSOLS I: AMBIENT MEASUREMENTS AND AEROSOL CHEMISTRY

E142-144 – Benjamin Murphy and Nurun Nahar Lata, chairs

**1UA.1 Wintertime Aerosol Volatility Measurements in Seoul, Korea Using a Thermodenuder (TD) Coupled with a High-Resolution Aerosol Mass Spectrometer (HR-ToF-AMS).** HWAJIN KIM, Hyun-Gu Kang, Jiwoo Jeong, *Seoul National University*

**1UA.2 Chemical Composition of PM<sub>2.5</sub> in Metropolitan Cities of India: Results from an Extensive Winter Campaign.** PRINCE 10:00 VIJAY, Shreya Dubey, Nidhi Singh, Tamara Schikowski, Harish C Phuleria, *Indian Institute of Technology Bombay*

**1UA.3 Primary Organics Drive Poor Wintertime Air Quality in Los Angeles.** RYAN X. WARD, Haroula D. Baliaka, Benjamin Schulze, 10:15 Richard Flagan, John Seinfeld, *California Institute of Technology*

**1UA.4 Measurement of Secondary Aerosol Formation in Ambient Urban Air Using Dual Portable Outdoor Chambers.** 10:30 XUANLIN DU, Alexander B. MacDonald, Ningjin Xu, Ying Zhou, Roya Bahreini, Don Collins, *University of California, Riverside*

**1UA.5 Urban New Particle Formation in Houston.** LEE TISZENKEL, James Flynn, Shanhu Lee, *University of Alabama Huntsville* 10:45

**1UA.6 Changes of Submicron Particulate Matter in Summer Atlanta - Measurement Results by Aerosol Mass Spectrometer**

11:00 **from Six Field Campaigns in the Last Decade.** YUTONG LIANG, Jean Rivera-Rios, Tianchang Xu, Masayuki Takeuchi, Taekyu Joo, Lu Xu, Nara Shin, Sabrina Westgate, David Pando, Azin Eftekhari, Na Rae Choi, Seongbin Jo, Anna Kaehr, Yuyang Peng, Nidhi Desai, Aryiana Moore, Jennifer Kaiser, Nga Lee Ng, *Georgia Institute of Technology*

**1UA.7 Increasing Contributions of Temperature-Dependent Oxygenated Organic Aerosol to Summertime Particulate Matter**

11:15 **in New York City.** TORI HASS-MITCHELL, Mitchell Rogers, Taekyu Joo, Benjamin A. Nault, Catelynn Soong, Mia Tran, Minguk Seo, Jo Machesky, Manjula Canagaratna, Joseph Roscioli, Nga Lee Ng, Ann Dillner, Roya Bahreini, Armistead G. Russell, Jordan Krechmer, Andrew Lambe, Drew Gentner, *Yale University*

Tuesday 11:30 AM - 1:00 PM

AAAR Board of Directors Luncheon (D136)

Tuesday 12:00 PM - 1:00 PM

Committee Meetings II - Working Group Chairs (E147/148)

Tuesday 12:00 PM - 1:00 PM

New PI Gathering (Ballroom)

Tuesday 1:00 PM - 3:00 PM

Technical Session 2: Poster

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2AC AEROSOL CHEMISTRY I: POSTERS

EXHIBIT HALL E

**2AC.1 Photoenhanced Radical Formation from Secondary Organic Aerosols and Surrogate Mixtures Derived from Biomass**

1:00 **Burning Organic Aerosol Components.** LENA GERRITZ, Meredith Schervish, Pascale Lakey, Tim Oeij, Jinlai Wei, Sergey Nizkorodov, Manabu Shiraiwa, *University of California, Irvine*

**2AC.2 Light Exposure of Wood Smoke Aerosols: Link between Chemical Composition and Optical Properties.** CAROLYN LIU-

1:00 KANG, Anna Sokolova, Jonathan Abbatt, *University of Toronto*

**2AC.3 The Sensitivity of Modeled Secondary Organic Aerosol (SOA) Formation to Differences in Speciation Profiles of**

1:00 **Biomass Burning Derived Non-Methane Organic Gases (NMOGs).** SAMIHA BINTE SHAHID, William P. L. Carter, Robert J. Yokelson, Kelley Barsanti, *University of California, Riverside*

**2AC.4 Impacts of Aging and Relative Humidity on Physical Properties of Wildfire Smoke.** Liora Mael, SOFIE SCHWINK, Thomas

1:00 Dunnington, Nicholas Gotlib, Marina Vance, *University of Colorado Boulder*

**2AC.5 Understanding the Effect of NO<sub>x</sub> on the Secondary Organic Aerosol Formation from Phenolic Compounds from**

1:00 **Biomass Burning.** DAVID PANDO, Magesh K. Mohan, Rodney J. Weber, Nga Lee Ng, *Georgia Institute of Technology*

**2AC.6 Mass and Physical Property Changes of Organic Aerosol (OA) Induced by Photolytic Aging.** BIN BAI, Yuchen Wang,

1:00 Nara Shin, Yaowei Li, Frank Keutsch, Nga Lee Ng, Pengfei Liu, *Georgia Institute of Technology*

**2AC.7 Brown Carbon Formation by Aqueous Phase Reactions of Glycolaldehyde and Methylamine.** Camille Carthy, Erin

1:00 O'Leary, Swetha Tadisina, Daniel Griffith, Heidi Hendrickson, Joseph Woo, MELISSA GALLOWAY, *Lafayette College*

**2AC.8 Evidence of Photoacidic Characteristics by Nitrophenols in Organic Matrices.** AVERY DALTON, Dmitry Fishman, Sergey

1:00 Nizkorodov, *University of California, Irvine*

**2AC.10 Kinetics in Colliding Microdroplets: Accelerated Synthesis of Azamonardine from Dopamine and Resorcinol.** EMILY

1:00 BROWN, Grazia Rovelli, Kevin R. Wilson, *Lawrence Berkeley National Laboratory*

- 2AC.11 Determining the Controls on Buffering Capacity and pH Evolution of Inorganic Aqueous Droplets Using Aerosol Optical Tweezers.** GRAHAM THORNHILL, Hallie Boyer Chelmo, Luke Monroe, Yucheng Zhang, Ryan Sullivan, *Carnegie Mellon University*  
1:00
- 2AC.12 Kinetics of Hypochlorous Acid Reactions with Organic and Chloride-Containing Tropospheric Aerosol.** SPIRO JORGA, Tengyu Liu, Yutong Wang, Sumaiya Hassan, Han N. Huynh, Jonathan Abbott, *University of Toronto*  
1:00
- 2AC.13 Light Absorption at Near-Infrared Wavelengths by Organosulfate Aerosols.** AUGUST LI, Joshin Kumar, Joseph V. Puthussery, Nurun Nahar Lata, Gregory W. Vandergrift, Zezhen Cheng, Felipe Rivera-Adorno, Valerie Viteri, Benjamin Sumlin, Ganesh Chelluboyina, Alexander Laskin, Swarup China, Rajan K. Chakrabarty, *Washington University in St. Louis*  
1:00
- 2AC.14 Assessing the Effects of Wet Deposition: Observing Removal Timescales for Gases and Aerosols in Semi-Urban and Remote Areas.** CHRISTOS STAMATIS, Chenyang Bi, Gabriel Isaacman-VanWertz, *Virginia Tech*  
1:00
- 2AC.15 The Response of Summertime Organic Aerosol Composition to Emission Controls in the Northeastern United States.** JIE ZHANG, Junfeng Wang, Yele Sun, Shan Zhou, ManishKumar Shrivastava, Alexandra Catena, Nga Lee Ng, Qi Zhang, James Schwab, *Atmospheric Sciences Research Center, University at Albany*  
1:00
- 2AC.16 Sensitivity of PM<sub>2.5</sub>, and Nitrate Concentrations to NH<sub>3</sub>, HNO<sub>3</sub>, and SO<sub>4</sub><sup>2-</sup> Control in NH<sub>3</sub>-Rich Urban Areas: A Case Study of Seoul, South Korea.** JOONHYEOK CHOI, Ji Yi Lee, Joonyoung Ahn, Mijung Song, *Jeonbuk National University*  
1:00
- 2AC.17 Sources and Global Distribution of Atmospheric Perchlorate Aerosol.** PEDRO CAMPUZANO-JOST, Dongwook Kim, Hongyu Guo, Benjamin A. Nault, Jason Schroder, Rainer Volkamer, Joseph Katich, Joshua P. Schwarz, Chelsea Thompson, Jeff Peischl, Thomas Ryerson, Andrew Weinheimer, Alessandro Franchin, Teresa Campos, Rebecca Hornbrook, Alan Hills, Eric Apel, Roisin Commane, Bruce Daube, Steven Wofsy, Glenn Diskin, Yuk Chun Chan, Lyatt Jaegle, Jose-Luis Jimenez, *CIRES, University of Colorado, Boulder*  
1:00
- 2AC.18 Seasonal Comparison of Particulate Matter Chemical Composition in Riverside, California.** ALEXANDER B. MACDONALD, Xuanlin Du, Ningjin Xu, Ying Zhou, Cesunica E. Ivey, Don Collins, Roya Bahreini, *University of California, Riverside*  
1:00
- 2AC.19 Interactions of Anthropogenic and Biogenic Pollutants: Overview of the Spruce 2022 Campaign.** ANGELIKI MATRALI, Christina N. Vasilakopoulou, Kalliopi Florou, Andreas Aktypis, Agata Kołodziejczyk, Christos Kaltsonoudis, Evangelia Kostenidou, Kacper Błaziak, Dontavious Sippial, Spyros N. Pandis, *University of Patras, Greece*  
1:00
- 2AC.20 Seasonal Variation in Molecular Composition of Organic Aerosol at the Southern Great Plains Observatory.** GREGORY W. VANDERGRIFT, Sonja Moons, Nurun Nahar Lata, Zezhen Cheng, Darielle Dexheimer, Rahul Zaveri, Fan Mei, Swarup China, *Pacific Northwest National Laboratory*  
1:00
- 2AC.21 Insights about the Sources of Organic Aerosol from Measurements of Organic Tracer Compounds in an Eastern Mediterranean Forested Site.** Agata Kołodziejczyk, Kacper Błaziak, ANGELIKI MATRALI, Christina N. Vasilakopoulou, Ksakousti Skylakou, Spyros N. Pandis, *University of Patras, Greece*  
1:00
- 2AC.22 Diurnal Trend and Interconnections of Organic Aerosols and Volatile Chemical Products (VCPs) in a Residential Area.** KYLE MCCARY, Sining Niu, Alana Doderio, Yeaseul Kim, Sahir Gagan, Timothy Onasch, Karsten Baumann, Raghu Betha, Qi Ying, Yue Zhang, *Texas A&M University*  
1:00
- 2AC.23 On the Dominant Role of Sulfate Chemistry on New Particle Formation during Summer in Houston.** JEREMY WAKEEN, James Smith, Xuanlin Du, Don Collins, O'Donnell Samuel, Jeffrey R. Pierce, *University of California, Irvine*  
1:00
- 2AC.24 Characterization of Ultrafine Particle Formation from Non-Tailpipe Vehicular Emissions.** MADELINE COOKE, Adam Thomas, Michelia Dam, Véronique Perraud, Lisa Wingen, Barbara Finlayson-Pitts, James Smith, *University of California, Irvine*  
1:00

- 2AC.25 Characterization of Chemical Aerosols Generated Using Commercially Available Liquid Aerosol Generators.** OYEDOYIN ADUROJA, Kalia Robinson, Cathy S. Scotto, Vasanthi Sivaprakasam, *US Naval Research Laboratory*  
1:00
- 2AC.26 Brake Wear Emissions of Gas-Phase Sulfuric Acid, Inorganic Nitrogen Species and Oxidized Organics.** MICHELIA DAM, Adam Thomas, Véronique Perraud, Lisa Wingen, Barbara Finlayson-Pitts, James Smith, *University of California, Irvine*  
1:00
- 2AC.27 Marginal Seas as Receptors and Reactors of Marine Aerosols: A Case Study of the Yellow Sea.** ANDREW LOH, Donghwi Kim, Joon Geon An, Narin Choi, Un Hyuk Yim, *Korea Institute of Ocean Science and Technology*  
1:00
- 2AC.28 Non-Volatile Marine and Non-Refractory Continental Sources of Particle-Phase Amine during the North Atlantic Aerosols and Marine Ecosystems Study (NAAMES).** VERONICA BERTA, Lynn Russell, Derek J. Price, Chia-Li Chen, Alex K.Y. Lee, Patricia Quinn, Timothy Bates, Thomas Bell, Michael Behrenfeld, *University of California San Diego*  
1:00
- 2AC.29 Investigate the Vertical Profile of Size-Resolved Aerosol Chemical Composition and Aerosol Mixing State during TRacking Aerosol Convection Interactions Experiment (TRACER).** ZEZHEN CHENG, Nurun Nahar Lata, Darielle Dexheimer, Matthew A. Marcus, Gregory W. Vandergrift, Tania Gautam, Chongai Kuang, Allison Steiner, Swarup China, *Pacific Northwest National Laboratory*  
1:00
- 2AC.30 Deep Convective Cloud Formation: Characterization of Secondary Organic Aerosols during TRACER-ARM Campaign.** TANIA GAUTAM, Gregory W. Vandergrift, Nurun Nahar Lata, Zezhen Cheng, Darielle Dexheimer, Swarup China, *Pacific Northwest National Laboratory*  
1:00
- 2AC.31 Absorption Spectra and Brown Carbon Chromophores in Particles Emitted by Burning Structural Materials.** LUIS RUIZ ARMENTA, Katherine Hopstock, Qiaorong Xie, Kevin Ridgway, Jamie Cast, Shantanu Jathar, Christian L'Orange, Alexander Laskin, Sergey Nizkorodov, *University of California, Irvine*  
1:00
- 2AC.32 The Influence of Inorganic Salts on the Gas-Aqueous Partitioning of Formic Acid and Acetic Acid.** AMIR BABAEI GHAREHBAGH, Rose Taylor, Joy Kiguru, Alyssa Burns, Annmarie Carlton, Christopher Hennigan, *University of Maryland, Baltimore County*  
1:00
- 2AC.33 Organosulfur Speciation in Archean Analog Aerosols: Molecular Characterization and Formation Mechanisms.** CADE CHRISTENSEN, Nathan Reed, Jason Surratt, Margaret Tolbert, Eleanor Browne, *University of North Carolina at Chapel Hill*  
1:00
- 2AC.34 Photochemical Production of Light-absorbing Syringol Secondary Organic Aerosol in Droplets using an Atmospheric Simulation Chamber.** LELIA HAWKINS, Ellie Smith, Linden Conrad, Jacob Weber, David De Haan, Christian Carmona, Duncan Ugland, Matthew-Khoa Tran, Jean-François Doussin, Mathieu Cazaunau, Aline Gratien, Michael R. Giordano, Mikael Ehn, Frans Graeffe, Liine Heikkinen, Peter F. DeCarlo, Matthieu Riva, Mario Contin, *Harvey Mudd College*  
1:00
- 2AC.35 Mechanistic Insights into NO<sub>3</sub> Oxidation of Furfural from Chamber Study.** RAPHAEL MAYORGA, Kunpeng Chen, Nilofar Raeofy, Michael Lum, Bradley Ries, Roya Bahreini, Ying-Hsuan Lin, Haofei Zhang, *University of California, Riverside*  
1:00

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## 2AP AEROSOL PHYSICS II: POSTERS

### EXHIBIT HALL E

- 2AP.1 Theoretical Derivation of Particle Collision Kernels from a First-Time-Passage Approach in the Diffusive Regime.** JOSÉ MORÁN, Mohammad Reza Kholghy, *University of Minnesota*  
1:00
- 2AP.2 Neural Network for Solving the General Dynamics Equation for Aerosols.** JIANI YANG, Matthew Ozon, Richard Flagan, John Seinfeld, *California Institute of Technology*  
1:00
- 2AP.3 Chemically-Resolved Volatility of Biomass Burning Emission.** JUN ZHANG, David Bell, Tiantian Wang, Kun Li, Mihnea Surdu, Sophie Bogler, Imad El Haddad, Jay G. Slowik, André S. H. Prévôt, *Paul Scherrer Institute*  
1:00



- 2AP.4 Phase States Linking with Chemical Composition of PM2.5 in Northeast Asia.** CHANGJOON SEONG, Daeun Kim, Rani Jeong, Yanting Qiu, Zhijun Wu, Changhyuk Kim, Kyoung-Soon Jang, Ji Yi Lee, Kwangyul Lee, Joonyoung Ahn, Amgalan Natsagdorj, Mijung Song, *Jeonbuk National University*  
1:00
- 2AP.5 Particle Size Distribution Measurements for Stratospheric Aerosols in the Range of 0.003 to ~4.0  $\mu\text{m}$  during the SABRE Mission.** MING LYU, Charles Brock, Adam Ahern, Samuel Taylor, Troy Thornberry, Ru-Shan Gao, Eric Hints, Colin Gurganus, Andrew Rollins, Eleanor Waxman, Fred Moore, Geoff Dutton, David Nance, Brad Hall, Kristen Zuraski, *CIRES/NOAA Chemical Sciences Laboratory*  
1:00
- 2AP.6 Investigating the Phase State of PM2.5 in Seoul and Beijing using Optical Microscopy and Poke-and-Flow Technique.** MIJUNG SONG, Rani Jeong, Daeun Kim, Yanting Qiu, Xiangxinyue Meng, Zhijun Wu, Andreas Zuend, Yoonkyeong Ha, Changhyuk Kim, Haeri Kim, Sanjit Gaikwad, Kyoung-Soon Jang, Ji Yi Lee, Joonyoung Ahn, *Jeonbuk National University*  
1:00
- 2AP.7 Approximating the van der Waals Interaction Potentials between Agglomerates of Nanoparticles.** JOSÉ MORÁN, Jerome Yon, Christophe Henry, Mohammad Reza Kholghy, *Carleton University*  
1:00
- 2AP.8 Particle Resuspension by Aerodynamic Forces: Drag, Lift, and Torque on a Prolate Spheroid Resting on a Smooth Surface.** Patrick Fillingham, IGOR NOVOSSELOV, *University of Washington*  
1:00
- 2AP.9 Retrospective Analysis of Two Decades of Particle Wall-loss Correction from the UCR Dual-90 m<sup>3</sup> Collapsible Chamber – A New Dynamic Size-independent Coagulation-corrected Method.** Chen Le, YANYU ZHANG, David R. Cocker III, *University of California, Riverside*  
1:00
- 2AP.10 Electrical Charge Characteristics of Brake Wear Aerosol.** ADAM THOMAS, Paulus Bauer, Michelia Dam, James Smith, *University of California, Irvine*  
1:00
- 2AP.11 Liquid Smoke as an Optical Surrogate for Biomass-burning Aerosols.** Shreya Joshi, Susan Mathai, Swarup China, Nurun Nahar Lata, Timothy Onasch, Arthur J. Sedlacek, Lynn Mazzoleni, Thusitha Divisekara, Simeon Schum, Kyle Gorkowski, CLAUDIO MAZZOLENI, *Michigan Technological University*  
1:00
- 2AP.12 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
- 2AP.13 Aerosol Deposition in Fully-Developed Turbulent Vertical Pipe Flows: Lagrangian Simulations and Experimental Validation.** FATEMEH RAZAVI, Zack Milani, Nick Ogrodnik, Edgar Matida, *Carleton University*  
1:00

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2BA BIOAEROSOLS I: POSTERS

EXHIBIT HALL E

- 2BA.1 Variability in Bioaerosol Particles Emitted from Prescribed Fires and Laboratory Burn Experiments.** KATHERINE BENEDICT, Abu Sayeed Md Shawon, Nevil Franco, Alejandro Gutierrez, Marie Kroeger, *Los Alamos National Laboratory*  
1:00
- 2BA.2 Seasonal Changes in the Microbiome of a Residential Chicken Coop.** JOHN CATE, Maria King, *Texas A&M University*  
1:00
- 2BA.4 Influence of Rainfall on Taxon-specific Bioaerosols around a Livestock Farm.** NOHHYEON KWAK, Erin Cortus, Carol Cardona, Kristelle Mendoza, Tara Gaire, Noelle Noyes, Jiayu Li, *University of Miami*  
1:00
- 2BA.5 Indoor Microbial Exposure Differences between Urban and Rural Homes in Central Texas.** JUAN PEDRO MAESTRE, David Jarma, Evan Williams, Sharon Horner, Kerry Kinney, *University of Texas at Austin*  
1:00
- 2BA.6 Selective Detection of Airborne Viable Influenza Virus via Capsid Integrity PCR.** SANGSOO CHOI, Amin Piri, Jiwoo Jung, Sanggwon An, Jungho Hwang, *Yonsei university*  
1:00



- 2BA.7 Evaluation of the Effectiveness of a Hygroscopic Glycerol Coating on MCE Filters on the Conservation of MS2 Viability during Aerosol Sampling.** MO WASHEEM, William Vass, Sripriya Nannu Shankar, Yuetong Zhang, Amin Shirkhani, Morteza Alipanah, Z. Hugh Fan, John Lednický, Chang Yu Wu, *University of Florida, Gainesville*  
1:00
- 2BA.8 Airborne Algicidal Bacteria May Control Phytoplankton Cell Fate in the Oceanic Blooms.** NAAMA LANG-YONA, J. Michel Flores, Inbal Nussbaum, Ilan Koren, Assaf Vardi, *Weizmann Institute of Science*  
1:00
- 2BA.9 Darwin's Dust and the Search for Signs of Ancient Life on Mars.** HANS MOOSMÜLLER, *Desert Research Institute*  
1:00
- 2BA.10 Validation of Air Sampling Methods Inside the Heating, Ventilation, and Air Conditioning (HVAC) Inside Student Dorms Using an Improved qRT-PCR Analysis Method.** SINAN SOUSAN, Marina Boatman, Lauren Johansen, Ming Fan, Rachel Roper, *Department of Public Health, East Carolina University*  
1:00
- 2BA.11 The Microfluidic Aerosol Sampler System (MASS).** LEAH TALBOTT, Andrea Timm, Ryan Darragh, Gregory Merboth, Christopher Stiles, Corrine Morrison, *Johns Hopkins University Applied Physics Laboratory*  
1:00
- 2BA.12 Implementing a Portable Biofilm Fluorescence Monitoring System for Enhanced Bioaerosol Source Control.** JAE HEE JUNG, In Ho Kim, Jae Hak Shin, *Sejong University*  
1:00
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## 2CA CARBONACEOUS AEROSOLS I: POSTERS

### EXHIBIT HALL E

- 2CA.1 Pyroculonimbus Black Carbon Morphology and Mixing State Control Direct Radiative Effect.** PAYTON BEELER, Joshin Kumar, Joshua P. Schwarz, Rajan K. Chakrabarty, *Washington University in St. Louis*  
1:00
- 2CA.2 Aggregation Induced Enhancements in Aerosol Absorption and Scattering across the Black-Brown Continuum.** JOSHIN KUMAR, Payton Beeler, Benjamin Sumlin, Rajan K. Chakrabarty, *Washington University in St. Louis*  
1:00
- 2CA.3 Apportionment of Primary and Secondary Carbonaceous Aerosols Using an Advanced Total Carbon – Black Carbon (TC-BC( $\lambda$ )) Method in Southern California.** MATIC IVANČIČ, Asta Gregorič, Gašper Lavrič, Bálint Alföldy, Irena Ježek Brecej, Payam Pakbin, Faraz Ahangar, Mohammad Sowlat, Steven Boddeker, Sina Hasheminassab, Martin Rigler, *Aerosol d.o.o.*  
1:00
- 2CA.4 A Novel Approach to Black Carbon Generation: Automated Soot Generation System Leveraging Real-Time Feedback for Enhanced Precision and Cost Efficiency.** KYAN SHLIPAK, Jeff Blair, Steven Blair, L. Drew Hill, *Aethlabs*  
1:00
- 2CA.5 Near Infrared-Absorbing, Non-Black Carbon Particulate Material from Biomass Burning.** TIMOTHY ONASCH, Ernie R. Lewis, Arthur J. Sedlacek, *Aerodyne Research, Inc.*  
1:00
- 2CA.6 Comparison of Black and Brown Carbon Emission Factors, Pollutant Ratios and Optical Properties in Prescribed Burn and Wildland Fire Smoke in California.** Rebecca A. Sugrue, Farrah Haeri, Chelsea V. Preble, Deep Sengupta, Nathan Kreisberg, Paul Van Rooy, John Battles, JAMES D.A. BUTLER, Coty Jen, Kelley Barsanti, Allen Goldstein, Thomas W. Kirchstetter, Afsara Tasnia, Robert York, Scott Stephens, *University of California, Berkeley*  
1:00
- 2CA.7 Characterizations of Black Carbon Aerosols from Southeast U.S. Prescribed Fires and Western U.S. Wildfires.** ANDREW METCALF, Dongli Wang, *Clemson University*  
1:00
- 2CA.8 Impacts of a Large Wildfire on Regional Ozone and PM<sub>2.5</sub> Considering the Light Absorption of Brown Carbon.** MINSU CHOI, Jie Zhang, Qi Ying, *Texas A&M University*  
1:00
- 2CA.9 Analysis of Wildfire Aerosol Aging Using the ASCENT Network Observations.** YINGJIE SHEN, Shane Murphy, Jason Surratt, Nicolas Aliaga Buchenau, Jose-Luis Jimenez, Douglas A. Day, Seonsik Yun, Nga Lee Ng, Ann Dillner, Roya Bahreini, Armistead G. Russell, *University of Wyoming*  
1:00

- 2CA.10 Composition and Surface Tension of Surface-Active Organics in Biomass Burning Aerosol.** ARIANA DEEGAN, Chase Glenn, Omar El Hajj, Kruthika Kumar, Anita Anosike, Joseph O'Brien, Rawad Saleh, Amanda Frossard, *University of Georgia*  
1:00
- 2CA.11 Light-absorbing Carbonaceous Aerosol Emissions from Biomass Burning under Wildfire and Prescribed-fire Conditions.** CHASE GLENN, Omar El Hajj, Anita Anosike, Kruthika Kumar, Robert Penland, Joseph O'Brien, Rawad Saleh, *University of Georgia*  
1:00
- 2CA.12 Secondary Organic Aerosol Formation from Gasoline Vehicle Exhaust Investigated in a Dual Outdoor Chamber System.** XUANLIN DU, Jinsheng Zhang, Linhui Tian, Ying-Hsuan Lin, Don Collins, *University of California, Riverside*  
1:00
- 2CA.13 Dynamic Optical Properties of Tar Balls during Night-time Aging.** SHU-WEN YOU, Prabhav Upadhyay, Joshin Kumar, Ganesh Chelluboyina, Payton Beeler, Joseph V. Puthussery, Benjamin Sumlin, Rajan K. Chakrabarty, *Washington University in St. Louis*  
1:00
- 2CA.14 Predicting Atmospheric Water-soluble Organic Mass Reversibly Partitioned to Aerosol Liquid Water in the Eastern United States.** MARWA EL-SAYED, Siddharth Parida, Prashant Shekhar, Amy P. Sullivan, Christopher Hennigan, *Embry-Riddle Aeronautical University*  
1:00
- 2CA.15 Heterogeneous Nitration of Biomass Burning Aromatic Compounds and Evolution of Their Light Absorbing Properties.** LAURA-HELENA RIVELLINI, Carolyn Liu-Kang, Jonathan Abbatt, *University of Toronto, Canada*  
1:00
- 2CA.16 Field Measurements of Carbonaceous Aerosol and Secondary Aerosol Tracers for Volatile Methyl Siloxanes in New York City.** JOSIE WELKER, Jeewani Meepage, Saeideh Mohammadi, Christopher Brunet, Hanalei Lewine, Rachel Marek, Keri Hornbuckle, Eleanor Browne, Charles Stanier, Elizabeth Stone, *University of Iowa*  
1:00
- 2CA.17 An Algorithm for Evaluating Fractal Parameters of a Single Soot Aggregate.** EGOR DEMIDOV, Alexei Khalizov, *New Jersey Institute of Technology*  
1:00
- 2CA.18 Improving Residential Wood Combustion Emissions Factors and Chemical Speciation with the Reactive Organic Carbon Framework.** BENJAMIN MURPHY, Karl Seltzer, Amara Holder, Gabriel Isaacman-VanWertz, Havala Pye, *United States Environmental Protection Agency*  
1:00
- 2CA.20 Extracting Soot Morphology from Microscopic Images via Machine Learning.** TIMOTHY DAY, Eduardo Carrasco, Khaled Mosharraf Mukut, Somesh Roy, *Marquette University*  
1:00

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## 2CO COMBUSTION II: POSTERS

### EXHIBIT HALL E

- 2CO.1 Shipboard Size Distributions Measurements and Sampling of Aerosol Particles in Ship Plumes at Baltic Sea.** DOMINIK SMOK, Jan Hovorka, Pavel Paces, Sandra Pier, Thomas Gröger, Helena Osterholz, *Charles University*  
1:00
- 2CO.2 Lean-Burn Aircraft Engine Emissions from Burning Sustainable Aviation Fuels: Results from the 2021 and 2022 Boeing ecoDemonstrator Ground Tests.** Richard Moore, Steven Baughcum, Matthew Brown, BENJAMIN A. NAULT, Bruce Anderson, Josh DiGangi, Edward Fortner, Andrew Freedman, Francisco Guzman, Jennifer Klettlinger, Richard Miake-Lye, Kevin Sanchez, Michael Shook, Gregory Smallwood, Elizabeth Wiggins, Edward Winstead, Luke Ziemba, *NASA*  
1:00
- 2CO.3 Airborne and Shipboard Measurements of Aerosol Particle Size Distributions in Ship Plumes at Baltic Sea.** JAN HOVORKA, Pavel Paces, Dominik Smok, Sandra Pier, Thomas Gröger, Helena Osterholz, *Charles University*  
1:00
- 2CO.4 Particle Emissions from MPI Gasoline /DPF Diesel passenger Cars during High Speed Operation.** HIROYUKI YAMADA, *Tokyo Denki University Graduate School*  
1:00

- 2CO.5 Aerosol Emissions and Characterization During the Burning Homes and Structural Materials (BHASMA) Project.** JAMIE CAST, Kevin Ridgway, Miranda Trujillo, Cristian Medina, Adam Norris, Thomas Borch, Christian L'Orange, Shantanu Jathar, *Colorado State University*  
1:00
- 2CO.6 Evaluation of Emissions from an EMD567 Switcher Locomotive with 100% Soy Methyl Ester Biodiesel.** Jeremy Rochussen, Rickey Lee, ANAND KUMAR, Hamed Nikookar, Nadine Borduas-Dedekind, Steven Rogak, Patrick Kirchen, *University of British Columbia*  
1:00
- 2CO.7 Soot-free Emissions from Jet Fuel Combustion: Oxidation Dynamics of Aircraft-like Soot.** UNA TRIVANOVIC, Sotiris Pratsinis, *ETH Zurich, Switzerland*  
1:00
- 2CO.8 The Influence of Smoke Particle Properties and Cabin Characteristics on Smoke Detection in Lunar Gravity.** CLAIRE FORTENBERRY, Ramaswamy Balasubramaniam, David Urban, *NASA Glenn Research Center*  
1:00
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2DI SYMPOSIUM: DISPARATE IMPACTS OF AEROSOLS I: POSTERS  
EXHIBIT HALL E

- 2DI.3 Community-Scale Monitoring of Particle-Bound Metals in Two Environmental Justice (EJ) Communities in the South Coast Air Basin: II. Stationary Monitoring Results.** CHRISTOPHER LIM, Mohammad Sowlat, Julia Montoya-Aguilera, Steven Boddeker, Ethan Balagopalan, Bill Grant, Eric Holden, Sina Hasheminassab, Payam Pakbin, Andrea Polidori, Jason Low, *South Coast Air Quality Management District*  
1:00
- 2DI.4 Climate Penalty on Air Pollution Mitigated by Anthropogenic Emission Reductions in the United States.** LIFEI YIN, Qiao Zhu, Bin Bai, Bingqing Zhang, Qian Di, Weeberb Requia, Loretta Mickley, Joel Schwartz, Lihua Shi, Pengfei Liu, *Georgia Institute of Technology*  
1:00
- 2DI.5 OpenAQ: Providing Universal Access to Air Quality Data to Empower a Global Community of Changemakers in Solving Air Inequality.** COLLEEN MARCIEL ROSALES, Chris Hagerbaumer, Russ Biggs, Gabriel Fosse, *OpenAQ*  
1:00
- 2DI.6 Racial Disparities in Fine Particulate Matter Exposure and COVID-19 Spread in the United States.** PAYTON BEELER, Rajan K. Chakrabarty, *Washington University in St. Louis*  
1:00
- 2DI.7 Pressurization and HVAC Configuration of Hospital Operating Rooms with an Airborne Disease Infected Patient.** REZA DANESHAZARIAN, Jeffrey Siegel, *University of Toronto*  
1:00
- 2DI.8 Towards the Real-Time Detection of Hazardous Dust from Narcotics and Explosives.** JOHANNES PASSIG, Andreas Walte, Sven Ehlert, Guanzhong Wang, Heinrich Ruser, Ellen-Iva Rosewig, Julian Schade, Aleksandrs Kalamašņņikovs, Robert Irsig, Petra Hehet, Michael Pütz, Martin Seipenbusch, Simone Vinati, Karsten Wegner, Konrad Matena, Thorsten Streibel, Ralf Zimmermann, *Rostock University and Photonion GmbH*  
1:00
- 2DI.9 Detection and Classification of Super-Micron Urban Aerosols with Open-Path Digital Holography.** NICHOLAS GOOD, Matt Freer, Gavin McMeeking, Benjamin Swanson, Matthew Berg, *CloudSci LLC*  
1:00
- 2DI.11 Leveraging Explainable Machine Learning to Understand the Impacts of Meteorology on PM2.5 Sources during a Household Energy Transition in China.** COLLIN BREHMER, Christopher Barrington-Leigh, Jill Baumgartner, Sam Harper, Martha Lee, Xiaoying Li, Guofeng Shen, Talia Sternbach, Shu Tao, Xiang Zhang, Yuanxun Zhang, Ellison Carter, *Colorado State University*  
1:00
- 2DI.12 Development of a New Health Metric for Fine Particles Based on Differential Toxicity.** JINGYU LEE, Minhan Park, Kihong Park, *Gwangju Institute of Science and Technology*  
1:00
- 2DI.14 Indoor Air Quality and Ventilation Patterns in Diverse Occupational Facilities across Colorado, and Outdoor Pollution Effects.** BENJAMIN SWANSON, Rachel Stevens, Will Clagett, Nicholas Good, Gavin McMeeking, Kate Patterson, Kathy Boyer, Odessa Gomez, Kristen Good, Ellison Carter, *Colorado State University*  
1:00

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2HA HEALTH RELATED AEROSOLS II: POSTERS

EXHIBIT HALL E

- 2HA.1 A Novel Approach for Measuring Deposition Characteristics of Nebulized Droplets using a Realistic Mouth-Throat Airway Model.** Hao Xu, Huizhen Yang, XIAOLE CHEN, Ya Zhang, Yu Feng, *Nanjing Normal University*  
1:00
- 2HA.2 Exposure Studies of Living Organisms: How the PolluRisk Platform is Simulating at the Laboratory Urban Air Quality and its Health Impacts.** PATRICE COLL, Antonin Bergé, Elie Al Marj, Mathieu Cazaunau, Aline Gratien, Lucy Gerard, Bénédicte Picquet-Varrault, Spyros N. Pandis, Sophie Lanone, The PolluRisk Team, *LISA UMR CNRS 7583, France*  
1:00
- 2HA.3 Gaseous Pollutants Linked to Pulmonary Diseases: East Meets West.** FATIM SANNOH, Haider Khwaja, Zafar Fatmi, Nadeem Rizvi, Aftab Turabi, Mirza M. Hussain, Azhar Siddique, David Carpenter, *University at Albany*  
1:00
- 2HA.5 Dynamic Chemistry of Passive Vaping Aerosols in the Indoor Environment.** ALEXA CANCHOLA, Ying-Hsuan Lin, *University of California, Riverside*  
1:00
- 2HA.6 Evaluating Silicone Wristbands for Personal Passive Sampling of Cyanobacteria Toxins: Evidence from the Diversity and Innovation in Screening and Prevention of Exposure over the Long-term (DISPEL) to Harmful Algal Blooms Study.** RAQUEL CHENAIL, James Christie, Cassandra Gaston, Alberto Caban-Martinez, Kimberly Pependorf, *University of Miami*  
1:00
- 2HA.7 Vaping-Induced Transformation of Terpene Additives in Cannabis Vape Products and its Impacts on the Cell Membrane Integrity.** SIRI LANGMO, Alexa Canchola, Ruth Meletz, Ying-Hsuan Lin, *University of California, Riverside*  
1:00
- 2HA.8 Development of an Advanced Personal Nasal Sampler (PNS) to Assess Personal Exposures to Infectious Agents.** TAEWON HAN, Gediminas Mainelis, *Rutgers, The State University of New Jersey*  
1:00
- 2HA.9 Co-Localization of Influenza Virus and Mucin in Droplets on Surfaces.** JIN PAN, Nicole C. Rockey, Seema Lakdawala, Nisha Duggal, Linsey Marr, *Virginia Tech*  
1:00
- 2HA.10 Effects of Ozone-Mediated Aging on the Oxidative Potential of E-cigarette Aerosols.** WONSIK WOO, Alexa Canchola, Michael Lum, Linhui Tian, Ying-Hsuan Lin, *University of California, Riverside*  
1:00
- 2HA.11 A Real-World Approach to In-Vitro Lung Epithelial Cell Toxicology of Atmospheric Air Pollutants.** CYNTHIA PHAM, Ryan Huff, Davi de Ferreyro Monticelli, Chris Carlsten, Naomi Zimmerman, *University of British Columbia*  
1:00
- 2HA.12 Quantification and Characterization of Nanomaterials Shed from Face Masks.** RYM MEHRI, Timothy Sipkens, Joel Corbin, Zuzana Gajdosechova, Gregory Smallwood, *National Research Council Canada*  
1:00
- 2HA.13 Effect of Photochemical Aging on Residential Wood Combustion Aerosol Toxicity in Airway Epithelial Models at the Air-Liquid Interface.** SVENJA OFFER, Hendryk Czech, Sebastiano Di Bucchianico, Mika Ihalainen, Pasi Yli-Pirilä, Olli Sippula, Yinon Rudich, Ralf Zimmermann, *Helmholtz Zentrum München*  
1:00
- 2HA.14 Physicochemical and Toxicological Profiles of Particles from Paired Combustions of California Biomass Species.** SAAGAR PATEL, Amber Kramer, David Park, Tiancong Ma, Tian Xia, Yifang Zhu, *University of California, Los Angeles*  
1:00
- 2HA.15 In Silico Analysis of Deposition Efficiency of Inhalable Metal-Containing Particles in Human Lung Model.** HYEON-JU OH, Jongbok Kim, *Seoul National University*  
1:00
- 2HA.17 Measuring Black Carbon Particles in Human Placentae.** PHILIP K. HOPKE, Atsuo Chiu, Verda Thomas, Emma Norris, Richard Miller, *University of Rochester School of Medicine and Dentistry*  
1:00

- 2HA.18 Developing Non-linear Machine Learning Models for Predicting PM2.5 Oxidative Potential Using Its Chemical Components Data in Various Environments.** SEUNGHYE LEE, Minhan Park, Ma. Cristine Faye Denna, Dahye Oh, Jiho Jang, Kihong Park, *Gwangju Institute of Science and Technology*  
1:00
- 2HA.19 Cellular Response to Delivery of Airborne Particles in Different Deposition Patterns through the Dosimetric Aerosol In Vitro Inhalation Device.** SRIPRIYA NANNU SHANKAR, Amber O'Connor, Kiran Mital, Yuetong Zhang, Amin Shirkhani, Alex Theodore, Tara Sabo-Attwood, Stavros Amanatidis, Gregory S. Lewis, Arantzazu Eiguren-Fernandez, Otmar Schmid, Chang-Yu Wu, *University of Florida*  
1:00
- 2HA.20 Comparative Toxicity of Fresh and Aged Anthropogenic Smoke Particles Emitted from Different Burning Conditions.** YONG HO KIM, Aditya Sinha, Ingrid George, David DeMarini, Andrew Grieshop, Ian Gilmour, *U.S. Environmental Protection Agency*  
1:00
- 2HA.21 Performance of a Medical Nebulizer when Testing with a Lung Simulator.** TAEWON HAN, Michael Falvo, Gediminas Mainelis, *Rutgers, The State University of New Jersey*  
1:00
- 2HA.22 Systematic Characterization of Air and Aerosol Dispersion in Operating Rooms.** TERRENCE GARCIA, Benjamin Alvarez, Crystal Butler, Daniel Winker, Erika Yu, Stephanie Ku, Kira Loshin, Michael Morrison, Shirley Klimkiewicz, Sarah Ton, Mika Helfers, Tim O'Hanlon, Megan Toms, Christopher Stiles, Ryan Darragh, Anurupa Bhonsale, Christopher Bradburne, Sarah Grady, Carlos Barajas, Sarah Harrison, Mayalen Brock, Greta Kintzley, Lucy Carruth, Brian Damit, et al., *Johns Hopkins University Applied Physics Laboratory*  
1:00
- 2HA.23 The Relative Stability of Influenza Virus Infectious Unit and Gene Copy Measurements on Surfaces.** KE ZHANG, Will Fitzsimmons, Adam Lauring, Krista Wigginton, *University of Michigan*  
1:00

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## 2IM INSTRUMENTATION AND METHODS II: POSTERS

### EXHIBIT HALL E

- 2IM.1 Comparison of Low-Cost PM Sensors with a Direct Mass Measurement at Sites Representing Road and Non-road PM Sources.** YU JUNG LIN, Karl Armstrong, Roby Greenwald, *Georgia State University*  
1:00
- 2IM.2 Effect of Aerosol Size Distribution on Uncertainty of Analyte Quantification Using X-ray Diffraction.** KABIR RISHI, Bon Ki Ku, Alan Dozier, Chen Wang, Orthodoxia Zervaki, Vasileia Vogjazi, Pramod Kulkarni, *Centers for Disease Control and Prevention, NIOSH*  
1:00
- 2IM.3 Maximizing the Output from Filter Sample Analysis: Evolved Gas Analysis from Thermal-Optical Carbon Analysis (TOCA) Using Photoionization Mass Spectrometry (PIMS).** Sven Ehlert, Hendryk Czech, Marco Schmidt, Martin Rigler, Andreas Walte, RALF ZIMMERMANN, *Photonion GmbH*  
1:00
- 2IM.5 PTR-MS as a CIMS? Increasing the Range of Detectable Compounds via Low Pressure Negative Soft Chemical Ionization.** TOBIAS REINECKE, Markus Leiminger, Markus Mueller, *IONICON Analytik GmbH, Innsbruck, Austria*  
1:00
- 2IM.6 Novel Approaches to Chemical Identification in Aerosols: PICARD Program Overview.** SHERRIE PILKINGTON, *IARPA*  
1:00
- 2IM.7 Fourier Transform Infrared (FT-IR) Organic and Elemental Carbon (OC & EC) Measurements in the Chemical Speciation Network (CSN).** ANAHITA AMIRI-FARAHANI, Andrew Weakley, Bruno Debus, Satoshi Takahama, Ann Dillner, *University of California Davis*  
1:00
- 2IM.8 Chemical Analysis of Aerosol Nanoclusters (2-10 nm) Using a High-Flow Differential Mobility Analyzer Coupled to a Thermal Desorption Chemical Ionization Mass Spectrometer.** PAULUS BAUER, Patricia M. Morris, Véronique Perraud, Barbara Finlayson-Pitts, James Smith, *University of California, Irvine*  
1:00

- 2IM.9 Can Infrared Spectra Functional Group Measurements Improve Organic Aerosol Characterization from Time of Flight-Aerosol Chemical Speciation Monitor (TOF-ACSM)?** NA MAO, Manjula Canagaratna, Nga Lee Ng, Satoshi Takahama, Ann Dillner, *University of California, Davis*  
1:00
- 2IM.10 HPLC-PDA Method Development, Validation, Optimization, and Comparison with GC-FID for The Quantification of Organic Acids.** ESTHER OLONIMOYO, Naresh Kumar Amradi, Stephanie Lansing, Akua Asa-Awuku, Candice M. Duncan, *University of Maryland*  
1:00
- 2IM.12 Use of Electrostatic Collector for Real-time Personal Exposure Monitoring of Ultrafine Particles.** Shaelyn Chen, Erkam Cakmak, Chengyu Zhang, Yifan Liu, Ching-Hsuan Huang, Byron Ockerman, IGOR NOVOSSELOV, *University of Washington*  
1:00
- 2IM.13 Incorporating Droplet Growth in Simulating the Performance of Condensation Particle Counters.** MARCUS BATISTA, Weixing Hao, Michel Attoui, Yang Wang, *University of Miami*  
1:00
- 2IM.15 Development of a Low-Cost, Open Source Condensation Particle Counter (CPC).** AARON COLLINS, *OpenAeros LLC*  
1:00
- 2IM.17 Performance of the Point Sampling Method and Inter-Comparison with State-of-the-Art Remote Emission Sensing.** MARKUS KNOLL, Martin Penz, Tommaso Rossi, Simone Casadei, Alexander Bergmann, *Graz University of Technology*  
1:00
- 2IM.18 Clusters Formed in Heavy Ionic Liquids as Potential DMA Standards.** CHANAKYA BAGYA RAMESH, Luis-Javier Perez-Lorenzo, Yang Wang, Michel Attoui, *University of Miami*  
1:00
- 2IM.19 Development of New Multiscale Aerosol Observing Systems for Deployment at the 3rd ARM Mobile Facility (AMF3) Bankhead National Forest (BNF) Site.** ASHISH SINGH, Chongai Kuang, Andrew McMahon, Scott Smith, Tamanna Subba, Shawn Serbin, Jenni Kyrrouac, Adam K Theisen, Allison McComiskey, *Brookhaven National Laboratory*  
1:00
- 2IM.20 Vapor-Phase Transmission Electron Microscopy for Submicron Visualization of NaCl Aerosols and Droplets.** MARTIN AHN, Yuhang Wang, Dewansh Rastogi, Kotiba A. Malek, Jiayue Sun, Taylor J. Woehl, Akua Asa-Awuku, *University of Maryland, College Park*  
1:00
- 2IM.21 Practical Characterization and Modeling of Higher Flow in a Water Condensation Growth Tube Bioaerosol Sampler.** Dominick Heskett, BRADEN STUMP, Patricia Keady, Gregory S. Lewis, Arantzazu Eiguren-Fernandez, *Aerosol Devices Inc.*  
1:00
- 2IM.22 Developing an LED-powered 8 m3 Environmental Chamber for Studying the Atmospheric Chemistry of Outdoor and Indoor Air.** RICKEY LEE, Paul Heine, Ayomide Akande, Nadine Borduas-Dedekind, *University of British Columbia*  
1:00
- 2IM.23 Measurements of Aerosol Size Distribution and Particle Number Concentration from a Novel Heated Tobacco Capsule (HTC) Prototype.** CHIH-HSIANG CHIEN, Hiral Patel, Matt Melvin, Weiling Li, Yezdi Pithawalla, *Altria Client Services LLC*  
1:00
- 2IM.24 Characteristics of Condensable Particulate Matter Formation in the EPA Method 202 Sampling Train.** PAUL VAN ROOY, Dave Nash, Jason Dewees, Ned Shappley, Walter Lin, Peter Kariher, *US EPA*  
1:00
- 2IM.25 PALMS-NG: A Unique Dual S-Shaped Time-of-Flight Mass Spectrometer for Atmospheric Measurements.** JUSTIN JACQUOT, Xiaoli Shen, Maya Abou-Ghanem, Karl Froyd, Michael Lawler, Gregory Schill, Kyra Slovacek, David Thomson, Daniel Murphy, Daniel Cziczo, *Purdue University*  
1:00
- 2IM.26 CHART: A Modular Research Tool for Testing of Protection Against Highly Toxic Aerosols.** TOM VENEMA, Dinesh Durán Jiménez, Duurt Alkema, Ruud Busker, Arjan van Wuijkhuijse, *TNO*  
1:00
- 2IM.27 Experimental Investigation of Aerosol Particle Loss from Sampling Tube Surface Roughness for Aviation nvPM Regulatory Measurements.** FERGUS LIDSTONE-LANE, Paul Williams, Amanda Lea-Langton, Mark Johnson, *University of Manchester*  
1:00
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2SS SYMPOSIUM: AEROSOLS SPANNING SPATIAL SCALES II: POSTERS

EXHIBIT HALL E

- 2SS.1 PM10 Is Not PM2.5: A Study on Fenceline Communities in Southeastern PA.** SHIVANG AGARWAL, Mina Tehrani, Kirsten Koehler, Peter F. DeCarlo, *Johns Hopkins University*  
1:00
- 2SS.2 Comparison of Summertime Aerosol- and Gas-Phase Measurements at Two Urban Atlanta Sites.** ALISON FANKHAUSER, Ruizhe Liu, Asher Mouat, Aryiana Moore, Ann Dillner, Roya Bahreini, Armistead G. Russell, Jennifer Kaiser, Nga Lee Ng, *Georgia Institute of Technology*  
1:00
- 2SS.3 Summer and Fall 2023 Update of an Ongoing Aethalometer-Based Black Carbon Measurement and Source Apportionment Campaign at Long-Term Monitoring Sites in Addis Ababa, Ethiopia as Part of the Multi-Angle Imager for Aerosols (MAIA) Investigation.** L. DREW HILL, Sina Hasheminassab, Jeff Blair, Steven Blair, Ivan Iskra, Tesfaye Mamo, Araya Asfaw, David Diner, *Aethlabs*  
1:00
- 2SS.4 Monitoring Smoke from Landscape Fires in the Flint Hills Region of Kansas during the 2022 Burning Season.** OLIVIA SABLAN, Bonne Ford, Emily Gargulinski, Melanie Hammer, Giovanna Henery, Shobha Kondragunta, Randall Martin, Zoey Rosen, Kellin Slater, Aaron van Donkelaar, Hai Zhang, Amber Soja, Sheryl Magzamen, Jeffrey R. Pierce, Emily Fischer, *Colorado State University*  
1:00
- 2SS.5 Large Variability in Ambient Fine Particle pH in Fairbanks Winter.** JAMES CAMPBELL, Michael Battaglia, Kayane Dingilian, Meeta Cesler-Maloney, William Simpson, Ellis Robinson, Peter F. DeCarlo, Brice Temime-Roussel, Barbara D'Anna, Jack Dibb, Athanasios Nenes, Rodney J. Weber, Jingqiu Mao, *University of Alaska Fairbanks*  
1:00
- 2SS.6 Preliminary Indoor PM2.5 Data from the Whole Communities—Whole Health Pilot Study.** ANSEL EARLY, David Jarma, Atila Novoselac, Kerry Kinney, *The University of Texas at Austin*  
1:00
- 2SS.7 Enhanced Measurements of PM2.5 Chemical Composition and Size Distribution in Wilmington, CA.** JULIA MONTOYA-AGUILERA, Christopher Lim, Mohammad Sowlat, Steven Boddeker, Zihan Zhu, Sina Hasheminassab, Roya Bahreini, Nga Lee Ng, Payam Pakbin, Andrea Polidori, Jason Low, *South Coast Air Quality Management District*  
1:00
- 2SS.8 Air-Microfluidic Resonator-based Aerosol Sensors: Pitfalls and Opportunities.** IGOR PAPROTNY, Mandana Hajizadehmotlagh, Dorsa Fahimi, Anuj Singhal, *University of Illinois at Chicago*  
1:00
- 2SS.9 Long-term Fine-scale PM2.5 Source Impacts from Major Sources at Monitors across the US.** TING ZHANG, Lucas Henneman, *George Mason University*  
1:00
- 2SS.10 Aerosol Size Distribution Comparison of Volcanic Ashes and Sahara Dust and Its Spatial Differences on La Palma Island.** VOLKER ZIEGLER, Maximilian Weiss, Frederik Weis, Henrik Hof, Ann Katrin Grossmann, Jon Vilches Sarasate, Agnes Sauleda Brossa, *Palas GmbH, Karlsruhe, Germany*  
1:00
- 2SS.11 Global Simulations of Phase State of Secondary Organic Aerosols with GEOS-Chem.** REGINA LUU, Meredith Schervish, Nicole June, O'Donnell Samuel, Shantanu Jathar, Jeffrey R. Pierce, Manabu Shiraiwa, *University of California, Irvine*  
1:00
- 2SS.12 Investigating the Impact of Emission Reductions on Ambient PAH and Nitrated PAH Concentrations.** JUN MENG, Elisabeth Galarneau, Deyong Wen, Junhua Zhang, Kenjiro Toyota, Verica Savic-Jovcic, *Environment and Climate Change Canada*  
1:00
- 2SS.13 Preliminary Results from the ASCENT Network: Aerosol Composition and Concentration at Cheeka Peak Observatory.** OLIVIA HAKAN, Philip Rund, Olga Garmash, Odelle Hadley, Courtney Winck, Nga Lee Ng, Ann Dillner, Roya Bahreini, Armistead G. Russell, Joel A. Thornton, *University of Washington*  
1:00
- 2SS.14 Spatial and Temporal Variability in PM2.5 in NAPA Valley, CA August-October 2020.** WILLIAM MILLS, Justin Cathey, *Northern Illinois University*  
1:00
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2UA URBAN AEROSOLS II: POSTERS

EXHIBIT HALL E

- 2UA.1 Properties and Chemistry of Ultrafine Particles at Zurich Airport.** Zachary Decker, Peter A. Alpert, Jay G. Slowik, Michael Bauer, Markus Ammann, Lukas Durcina, Jacinta Edebeli, Curdin Spirig, André S. H. Prévôt, Julien Anet, Martin Gysel, BENJAMIN BREM, *Laboratory of Atmospheric Chemistry, Paul Scherrer Institute*  
1:00
- 2UA.2 Influence of Multiphase Chemistry on Oxygenated Organic Aerosol Formation in the New York City Region.** MITCHELL ROGERS, Taekyu Joo, Tori Hass-Mitchell, Benjamin A. Nault, Mia Tran, Manjula Canagaratna, Joseph Roscioli, Jordan Krechmer, Andrew Lambe, Drew Gentner, *Yale University*  
1:00
- 2UA.3 Multi-Year Datasets of PM1 Chemical Composition and Organic Aerosol Sources at Various French Urban and Suburban Areas.** HASNA CHEBAICHEB, Olivier Favez, Joel Brito, Florian Couvidat, Augustin Colette, Caroline Marchand, Veronique Riffault, *Laboratoire Central de Surveillance de la Qualité de l'Air*  
1:00
- 2UA.4 Exposure of City-Dwellers to Particulate Matters during Commuting Trips in the Metropolitan Area of Karachi.** KAMRAN KHAN, Haider Khwaja, Sumayya Saied, Saiyada Masood, *University of Karachi, Pakistan*  
1:00
- 2UA.5 Use of an Oxidation Flow Reactor in the Field to Study Ambient Secondary Aerosol Formation from Gas- and Aqueous-Phase Chemistry.** YING ZHOU, Alexander B. MacDonald, Ningjin Xu, Xuanlin Du, Roya Bahreini, Don Collins, *University of California, Riverside*  
1:00
- 2UA.6 Organic Components Containing Sulfur and Nitrogen Reduce the Volatility of Urban Organic Aerosols.** QIAORONG XIE, Alexander Laskin, Pingqing Fu, *Purdue University*  
1:00
- 2UA.7 Identifying Mass Spectral Markers for Tire Wear Particles.** XING WANG, Arthur W. H. Chan, Greg J. Evans, *University of Toronto*  
1:00
- 2UA.8 Effect of Secondary Organic Aerosol Formation Pathways on Human Health.** LU QI, Ka Yuen Cheung, Chuan Ping Lee, Dongyu S. Wang, Zhiyu Li, Weikang Ran, Yufang Hao, Xinmei Huang, Gang Chen, Qingqing Wang, Weiqi Xu, Tianqu Cui, Kun Li, Vishal Verma, Yuemei Han, Qiyuan Wang, Zifa Wang, Yele Sun, Kaspar R. Daellenbach, Urs Baltensperger, Robin Modini, Imad El Haddad, Junji Cao, André S. H. Prévôt, Jay G. Slowik, *Paul Scherrer Institute*  
1:00
- 2UA.9 Elemental Characterization of PM2.5 at an Urban Traffic Site in Central Europe.** Laurence Windell, Jaroslav Schwarz, Radek Lhotka, Petra Pokorná, Jakub Ondráček, Vladimír Ždímal, PHILIP K. HOPKE, *ICPF CAS, Prague, Czech Republic*  
1:00
- 2UA.10 Chemical, Physical, and Optical Properties of Ambient Particulate Matter during Widespread Fireworks Use in Southern California.** DANIEL B. CURTIS, Danielle Rocco, Esther Morales, Jason Truong, Tyler Deflin, *California State University, Fullerton*  
1:00
- 2UA.11 Assessing the Spatial Distribution of Traffic-Related Lung Deposited Surface Area in an Urban Micro-Environment Using Computational Fluid Dynamics.** PO-KAI CHANG, Li-Ti Chou, Ta-Chih Hsiao, *National Taiwan University, Taiwan*  
1:00
- 2UA.12 Within-City Variability of Ultrafine and Fine Particulate Matter in South Asian and North American Cities.** PROVAT SAHA, Tanbhir Shovon, Dipika Roy Prapti, Albert Presto, Allen Robinson, *Bangladesh University of Engineering and Technology*  
1:00
- 2UA.13 Quantifying and Characterising Nanoparticle Emissions from Tyre and Road Wear Emissions.** MOLLY J. HAUGEN, Adam M Boies, *University of Cambridge*  
1:00
- 2UA.14 Emissions of Nucleation Mode Brake Wear Particles on Real Urban Driving Cycles.** HIROYUKI HAGINO, *Japan Automobile Research Institute*  
1:00

**2UA.15 Trends and Insights into Sources of PM<sub>2.5</sub> in Kolkata, India from Low Cost Sensor Network Data.** V. FAYE MCNEILL, 1:00 Siddharth Nobell, Arnab Majumdar, Shovon Mukherjee, Sukumar Chakravorty, Sanjoy Chatterjee, Soumitra Bose, Anindita Dutta, Sandhya Sethuraman, Vigneshwari Sivakumar, Daniel Westervelt, Sarbani Palit, Shairik Sengupta, Rakhi Basu, *Columbia University*

**2UA.16 Climatology and Sources of Particulate Matter in an Urban Arid Region: First real-time chemical and elemental observations in Doha, Qatar.** SHAMJAD MOOSAKUTTY, 1:00 Mohammed Ayoub, Rami Alfarra, *Qatar Environment & Energy Research Institute*

Tuesday 3:00 PM - 3:30 PM  
Coffee Break with Exhibitors

Tuesday 3:30 PM - 5:00 PM  
Technical Session 3: Platform

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3AC AEROSOL CHEMISTRY II: BIOMASS BURNING AND BROWN CARBON AEROSOLS 1: LABORATORY AND FIELD MEASUREMENTS  
*PORTLAND BALLROOM* – James Davies and Meredith Schervish, chairs

**3AC.1 Investigating Effects of Biomass Burning Cross Plume Gradients and Plume Concentration on Photochemistry, Secondary Aerosol Formation, and Coagulation.** NICOLE JUNE, 3:30 Archana Dayalu, Marikate Mountain, Matthew Alvarado, Jeffrey R. Pierce, *Colorado State University*

**3AC.2 Composition and Atmospheric Transformations of Organic Aerosol Emitted From Biomass and Urban Material Burning.** KATHERINE HOPSTOCK, 3:45 Alexandra Klodt, Michael Alvarado, Qiaorong Xie, Hind Al-Abadleh, Alexander Laskin, Sergey Nizkorodov, *University of California, Irvine*

**3AC.3 New Insights into the Detection and Chemistry of Levoglucosan in Biomass Burning Aerosol - Heterogeneous Chemistry and Novel Detection Methods.** RAN ZHAO, 4:00 Dylan Long, Max Loebel Roson, *University of Alberta*

**3AC.4 Photoaging of Phenolic Secondary Organic Aerosol in the Aqueous Phase: Evolution of Chemical and Optical Properties and Effects of Oxidants.** WENQING JIANG, 4:15 Christopher Niedek, Cort Anastasio, Qi Zhang, *University of California, Davis*

**3AC.5 Source Apportionment and Phase Partitioning of Atmospheric Semi-Volatile Organic Compounds during the Alaskan Wintertime.** KAROLINA CYSNEIROS DE CARVALHO, 4:30 Ellis Robinson, Andrew Holen, Judy Wu, Vanessa Selimovic, Damien Ketcherside, William Simpson, Peter F. DeCarlo, Kerri Pratt, Lu Hu, Robert J. Yokelson, Brent Williams, *Washington University in St. Louis*

**3AC.6 Laboratory Studies of Photolysis Aging of Brown Carbon Aerosols.** DIEGO CALDERON-ARRIETA, 4:45 Ana Morales, Taylor Estock, Anusha P.S. Hettiyadura, Chunlin Li, Yinon Rudich, Alexander Laskin, *Purdue University*

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3AP AEROSOL PHYSICS III  
*E147/148* – Jose Moran and Tianchang (Athena) Xu, chairs

**3AP.1 Predicting Real Refractive Index of Organic Aerosols from Elemental Composition.** YAOWEI LI, 3:30 Bin Bai, John Dykema, Nara Shin, Andrew Lambe, Qi Chen, Mikinori Kuwata, Nga Lee Ng, Frank Keutsch, Pengfei Liu, *Harvard University*

**3AP.2 Enhanced Radiative Forcing Effects and Albedo Reduction from Brown Carbon Aerosol Deposition on Glacier Snow.** 3:45 GANESH CHELLUBOYINA, Benjamin Sumlin, Payton Beeler, Rajan K. Chakrabarty, *Washington University in St. Louis*

**3AP.3 Direct Influence of Aerosol Particles in Cavity Enhanced Spectroscopy.** FELIX STOLLBERGER, 4:00 Michael Gleichweit, Ruth Signorell, Alexander Bergmann, *Graz University of Technology*

- 3AP.4 Optically Trapped, Single-Particle Reactor for the Study of Heterogeneous Chemistry.** YUKAI AI, Chuji Wang, Gorden Videen, Yong-Le Pan, *Mississippi State University*  
4:15
- 3AP.5 Non-contact Surface Sampling: Aerodynamic Resuspension of Particulates by Planar Impinging Jet.** Byron Ockerman, Kalyan Kottapalli, Guanyu Song, Patrick Fillingham, IGOR NOVOSSELOV, *University of Washington*  
4:30
- 3AP.6 Understanding the Impact of Particle Morphology on Resuspension with a 3D Printed Wind Tunnel.** EDWARD NEAL, Jonathan P. Reid, Richard J. Thomas, Maurice Walker, Jack Vincent, Simon Parker, Virginia Foot, Benjamin Higgins, *University of Bristol*  
4:45
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### 3HA HEALTH RELATED AEROSOLS III: OXIDATIVE POTENTIAL OF PARTICULATE MATTER

E145/146 – Yinon Rudich and Kasey Edwards, chairs

- 3HA.1 Effects of Atmospheric Aging on the Dithiothreitol-based Oxidative Potential of Carbonaceous Aerosols.** KA YUEN CHEUNG, Jun Zhang, Tiantian Wang, Lisa Kattner, Sophie Bogler, Martin Gysel, Jay G. Slowik, Vishal Verma, André S. H. Prévôt, Imad El Haddad, David Bell, Robin Modini, *Paul Scherrer Institute*  
3:30
- 3HA.2 Machine Learning Models to Predict Oxidative Potential of Ambient PM2.5: A Midwestern US Case Study.** TAHSINA ALAM, Hannah Horowitz, Lei Zhao, Vishal Verma, *University of Illinois Urbana Champaign*  
3:45
- 3HA.3 The Influence of Meteorological Conditions on Traffic-related SOA Formation and Its Relationship with OP.** LI-TI CHOU, Po-Kai Chang, Ta-Chih Hsiao, *National Taiwan University, Taiwan*  
4:00
- 3HA.4 Accessing the Oxidative Potential of Dust from the Great Salt Lake.** REUBEN ATTAH, Kerry Kelly, Kevin Perry, *University of Utah*  
4:15
- 3HA.5 Aqueous OH Radical Production by Brake Wear Particles.** SUKRITI KAPUR, Ting Fang, Kasey Edwards, Véronique Perraud, Lisa Wingen, Adam Thomas, James Smith, Manabu Shiraiwa, *University of California, Irvine*  
4:30
- 3HA.6 Are Health Effects of Ambient PM2.5 Proportional to its Mass? Relevance of Toxicity Measurements in Predicting PM2.5 Health Effects.** SUDHEER SALANA, Zhuying Dai, Haoran Yu, P. S. Ganesh Subramanian, Vishal Verma, *University of Illinois at Urbana-Champaign*  
4:45
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### 3IM INSTRUMENTATION AND METHODS III: OPTICAL AND IMAGING METHODS

F150 – Arthur Chan and Susan Mathai, chairs

- 3IM.1 Detection of Bioaerosol by Measuring Single Particle Differential Circular Polarization Scattering (CIDS).** YONG-LE PAN, Aimable Kalume, Chuji Wang, Joshua L. Santarpia, *U.S. Army Research Laboratory*  
3:30
- 3IM.2 A Computational Sensitivity Study To Refine Photoacoustic Absorption Signals Through Geometry Optimization.** PRABHAV UPADHYAY, Benjamin Sumlin, Rajan K. Chakrabarty, *Washington University in Saint Louis*  
3:45
- 3IM.3 Real-Time Measurements of Respirable Crystalline Silica, Kaolinite, Coal, and Calcite Dust with a Quantum Cascade Laser Equipped Photoacoustic Instrument.** W. PATRICK ARNOTT, Charles Kocsis, Xiaoliang Wang, Bankole Osho, Samuel Taylor, Pedro Nascimento, Bjoern Bingham, Chauntelle Murphy, Michael Sandink, *University of Nevada, Reno*  
4:00
- 3IM.4 Comparison of Optical Properties Calculated from a Dual-Spot Aethalometer and a Photoacoustic Spectrometer for Biomass Burning Aerosols during the GWISE Campaign.** RYAN POLAND, Zachary McQueen, Omar El Hajj, Chase Glenn, Anita Anosike, Kruthika Kumar, Joseph O'Brien, Rawad Saleh, Geoffrey Smith, *University of Georgia*  
4:15

**3IM.5 Boundary Layer Profiles of Particle Turbulent Mass Fluxes at the Southern Great Plains Site.** AJMAL RASHEEDA  
4:30 SATHEESH, Markus Petters, Nicholas Meskhidze, *NC State University*

**3IM.6 More Information from an Optical Particle Counter.** DANIEL MURPHY, NOAA CSL  
4:45

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3SS SYMPOSIUM: AEROSOLS SPANNING SPATIAL SCALES III

F151 – Manish Shrivastava and James Campbell, chairs

**3SS.1 From Concentrations to Context: Approaches for Translating Sensor Network Data into Meaningful Outputs.** NAOMI  
3:30 ZIMMERMAN, *University of British Columbia*

**3SS.2 Data Fusion with Uncertainty Quantification for Sub-City-Scale Assessments and Forecasting of PM<sub>2.5</sub> and Trace Gases.** NATHAN PAVLOVIC, Carl Malings, K. Emma Knowland, Christoph Keller, Stephen Cohn, Callum Wayman, Alan Chan, Sean Wihera, Sean Khan, John White, Daniel Westervelt, Randall Martin, *Sonoma Technology, Inc.*

**3SS.3 Trends of Present-Day On-Road Motor Vehicle Particulate Matter Emissions to Total PM Using a Low-Cost Sensor Network in Baltimore City.** COLBY BUEHLER, Misti Zamora, Daniela Flores, Marley Macarewich, Lei Hao, Abhi Datta, Kirsten Koehler, Drew Gentner, *Yale University*

**3SS.4 Spatiotemporal Distribution of Brown Carbon and Organic Aerosol Brownness Across the U.S. Chemical Speciation Network.** L.-W. ANTONY CHEN, Judith Chow, Xiaoliang Wang, John Watson, Jingqiu Mao, *University of Nevada, Las Vegas*

**3SS.5 Size-Resolved Characterization of Particle Hydroxymethanesulfonate (HMS), Sulfite, Bisulfite, and Sulfate in Wintertime Fairbanks, Alaska.** KAYANE DINGILIAN, Elliana Hebert, Michael Battaglia, James Campbell, Jingqiu Mao, Rodney J. Weber, *Georgia Institute of Technology*

**3SS.6 Correcting 20,000+ Low-Cost Sensors Without a Colocation: Development of a Global Gaussian Mixture Regression Model for Optical PM<sub>2.5</sub> Sensors.** GARIMA RAHEJA, Daniel Westervelt, *Columbia University*

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3UA URBAN AEROSOLS III: PM<sub>2.5</sub> AND AEROSOL PHYSICS

E142-144 – Chelsea Preble and Marina Nieto-Caballero, chairs

**3UA.1 Comparison of PM<sub>2.5</sub> Measurements by Air Quality Monitoring Stations and Filter-based Method in Jakarta, Indonesia.** ENDAH DAMASTUTI, Muhayatun Santoso, Desie Khoeratunnisya, Syukria Kurniawati, Djoko Prakoso Dwi Atmodjo, Faizal Ramadhani, Woro Yatu Niken Syahfitri, Feni Fernita Nurhaini, Philip K. Hopke, *National Innovation and Research Agency (BRIN), Indonesia*

**3UA.2 The Use of Black Carbon Sensors to Enhance Particulate Matter Monitoring in Communities.** Rebecca A. Sugrue, 3:45 CHELSEA V. PREBLE, James D.A. Butler, Alaia Redon-Gabel, Pietro Marconi, Karan Shetty, Lee Ann Hill, Audrey Smith, Boris Lukanov, Thomas W. Kirchstetter, *UC Berkeley*

**3UA.3 Impacts of Precipitation on Aerosol Chemical Composition in a Highly Urbanized Area during the TRACER-MAP Field Campaign.** CHUN-YING CHAO, Fangzhou Guo, Shan Zhou, James Flynn, Rebecca J. Sheesley, Sascha Usenko, Don Collins, Robert Griffin, *Rice University*

**3UA.4 Aerosol Concentration, Size Distribution, and Cloud Condensation Nuclei Activity at 5 Sites in Houston during the TRACER-MAP Campaign.** ZIHAN ZHU, Don Collins, Chun-Ying Chao, Robert Griffin, Kimberly Saucedo, Sascha Usenko, Rebecca J. Sheesley, Subin Yoon, James Flynn, *University of California, Riverside*

**3UA.5 Wind-Driven Emissions of Coarse Mode Particles in an Urban Environment.** MARKUS PETERS, Tyas Pujiastuti, Ajmal 4:30 Rasheeda Satheesh, Sabin Kasparoglu, Bethany Sutherland, Nicholas Meskhidze, *North Carolina State University*

**3UA.6 PM2.5 Suppression of Ozone Formation at High Mass Loading.** JAMES SCHWAB, Jie Zhang, Alexandra Catena, Janie Schwab, Matthew Ninneman, Junfeng Wang, Amanda Teora, *Atmospheric Sciences Research Center, University at Albany*

Tuesday 5:00 PM - 6:00 PM

Working Group Meetings 1: Aerosol Chemistry (E145/146), Combustion and Materials Synthesis (F151), Health Related Aerosols (F150), History of Aerosol Science (E147/148), Instrumentation and Methods (E142-144)

Tuesday 6:00 PM - 8:00 PM

Welcome Reception

Tuesday 6:00 PM - 8:00 PM

Technical Session 4: Meet the Job Seekers Poster Session

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4MJ MEET THE JOB SEEKERS: POSTERS

EXHIBIT HALL E

**4MJ.1 Gideon Maina, IoT Engineer/ Air Quality Monitoring Technologist, Industry/Government/Academia.** GIDEON MAINA, *Code For Africa*

**4MJ.2 Ifechukwude Chiedu, Ph.D. Research Scientist/Quality Assurance Specialist, Academia/Government/Industry.** IFECHUKWUDE CHIEDU, *Federal Institute of Industrial Research Lagos, Nigeria.*

**4MJ.3 Ryan W. Drover, Ph.D. Candidate at UC Riverside.** RYAN W. DROVER, David R. Cocker III, *University of California, Riverside*

**4MJ.4 Xinyang Guo, Ph.D. Candidate Pursuing Academia/Government/Industry Postdoctoral Positions.** XINYANG GUO, *University of Alberta*

**4MJ.5 New Insights Into the Composition of Organics in the Atmosphere Enabled by Advanced Processing Techniques for Existing Chromatographic Datasets.** SUNGWOO KIM, Lindsay Yee, Allen Goldstein, Nathan Kreisberg, Gabriel Isaacman-VanWertz, *Virginia Tech*

**4MJ.6 Sunhye Kim, Ph.D. Candidate, Air Quality Project Manager.** SUNHYE KIM, *Carnegie Mellon University*

**4MJ.7 Sudheer Salana, Ph.D. Candidate, University of Illinois at Urbana-Champaign, Seeking Postdoctoral Positions in Aerosol Measurements/Health effects.** SUDHEER SALANA, *University of Illinois at Urbana-Champaign*

**4MJ.8 Una Trivanovic, PhD Candidate at ETH Zürich, Seeking an Academic Position.** UNA TRIVANOVIC, *ETH Zurich, Switzerland*

**4MJ.9 Shuang Wu, Ph.D. Candidate in Environmental Atmospheric Chemistry, Postdoctoral/Industry Positions.** SHUANG WU, *University of Alberta*

**4MJ.10 Wen Zhang, 5th Year Ph.D. Candidate, a Postdoctoral Research Position.** WEN ZHANG, *University of California, Riverside*

**4MJ.11 Karolina Cysneiros de Carvalho, PhD Candidate Seeking Industry/Postdoctoral Positions.** KAROLINA CYSNEIROS DE CARVALHO, *Washington University in St. Louis*

**4MJ.12 Chun-Ying Chao, Current Ph.D. candidate in Environmental Engineering at Rice University, Seeking Postdoctoral position.** CHUN-YING CHAO, *Rice University*

**4MJ.13 Weixing Hao, Ph.D. Candidate, Pursuing Postdoc/Faculty/Scientist Positions.** WEIXING HAO, *University of Miami*

**4MJ.14 Lu Zhang, Ph.D. Candidate at Peking University, Seeking a Postdoctoral Position.** LU ZHANG, *Peking University*

- 4MJ.15 Multiscale Modeling - Ella Ivanova.** ELLA IVANOVA, *New Jersey Institute of Technology*  
6:00
- 4MJ.16 Darryl Angel, Ph.D. Candidate Pursuing Bioaerosol/Environmental Microbiology Postdoctoral or Research Scientist Positions within Government or Industrial Sectors.** DARRYL ANGEL, *Yale University*  
6:00
- 4MJ.17 Sohyeon Jeon, PhD Candidate, Industry/Government/Postdoc Position.** SOHYEON JEON, *Washington University in St. Louis*  
6:00
- 4MJ.18 Jinglin Jiang, Ph.D. Candidate, Purdue University, Seeking Industry/Postdoctoral Positions.** JINGLIN JIANG, *Purdue University*  
6:00
- 4MJ.19 Colby Buehler, PhD Candidate (Yale), Teaching/Research/Postdoc Opportunities.** COLBY BUEHLER, *Yale University*  
6:00
- 4MJ.20 Namrata Shanmukh Panji, PhD Student at Virginia Tech Seeking Government or Industry Roles.** NAMRATA SHANMUKH PANJI, *Virginia Tech*  
6:00
- 4MJ.21 Susan Mathai, PhD in Atmospheric Sciences, and Desired Position/Area: Post Doc/Scientist in the Field Related to Optical Properties of Aerosols Emitted from Biomass Burning.** SUSAN MATHAI, *Michigan Technological University*  
6:00
- 4MJ.22 Chethani Athukorala, PhD Candidate / Post-Doc or Industry Research Position / Experimental Research.** CHETHANI ATHUKORALA, *Clarkson University*  
6:00
- 4MJ.23 Bethany Sutherland, Ph.D. Candidate at North Carolina State University (NC SU) Seeking a Postdoctoral Research Position.** BETHANY SUTHERLAND, *NC State University*  
6:00
- 4MJ.24 Purushottam Kumar, PhD Student (Virginia Tech), Seeking R&D Opportunities in Research Labs or Industry Sector.** PURUSHOTTAM KUMAR, *Virginia Tech*  
6:00
- 4MJ.25 Paulus Bauer, PostDoc in Physical Chemistry UC Irvine, Looking for Job in R&D or Teaching.** PAULUS BAUER, *University of California, Irvine*  
6:00
- 4MJ.26 Tori Hass-Mitchell, Ph.D. Candidate at Yale University in Chemical and Environmental Engineering, Seeking Industry/Government/National Lab Positions.** TORI HASS-MITCHELL, *Yale University*  
6:00
- 4MJ.27 Jo Machesky, Ph.D. Candidate at Yale, Seeking Post-doctoral or Full-Time Government or Industry Positions.** JO MACHESKY, *Yale University*  
6:00
- 4MJ.28 Alexander B. MacDonald, Postdoc at UC Riverside Pursuing a Career in Government or Industry.** ALEXANDER B. MACDONALD, *University of California, Riverside*  
6:00
- 4MJ.29 Tania Gautam, PhD Candidate, University of Alberta, Pursuing Industry/Government Postdoctoral Positions.** TANIA GAUTAM, *Pacific Northwest National Laboratory*  
6:00
- 4MJ.30 Medinat Akindele, PhD Candidate in Civil and Environmental Engineering; Research Positions in Environmental Engineering and/or Environmental Policy.** MEDINAT AKINDELE, *Carnegie Mellon University*  
6:00
- 4MJ.31 Abhishek Anand, PhD Candidate at Carnegie Mellon University, Seeking Postdoctoral Positions in Aerosol Measurement and Modeling that Includes Machine and Deep Learning Models.** ABHISHEK ANAND, *Carnegie Mellon University*  
6:00
- 4MJ.32 Kaitlyn McKinney, Research Assistant/Ph.D. Student in Civil Engineering Looking for Careers in Field Research or Data Science.** KAITLYN MCKINNEY, *Texas Tech University*  
6:00

**4MJ.33 Saravanan Kanagaratnam, Teaching Assistant/Doctoral Degree/Faculty Position, Government, and Industry/Ohio, Pennsylvania, Kentucky, Indiana, West Virginia, and North Carolina.** SARAVANAN KANAGARATNAM, *Texas Tech University*

**4MJ.34 Dr. Sunil Kumar; Current Position - Associate Research Scientist, Specialization – Thermal & Fluids Engineering; PhD – Nuclear Engineering.** SUNIL KUMAR, *Texas A&M University*

**4MJ.35 Yuhan Yang, Ph.D. Candidate, Pursuing Postdoc/Scientist Positions.** YUHAN YANG, *Georgia Institute of Technology*

**4MJ.36 Eloise Parry-Nweye, Ph.D. Candidate in Chemical Engineering, Seeking Industry/Government/Postdoc Position.** ELOISE PARRY-NWEYE, *Syracuse University*

**4MJ.37 Prince Vijay, Ph.D. Candidate (IIT Bombay)- Environmental Engineering-Air Pollution.** PRINCE VIJAY, *Indian Institute of Technology Bombay*

**4MJ.38 Brooke L. Smith, PhD Candidate at Texas A&M University, Pursuing a Career in Government or Industry.** BROOKE SMITH, *Texas A&M University*

### Wednesday

Wednesday 6:30 AM - 7:30 AM

AAAR 5k(ish) Fun Run/Walk (Meet in the DoubleTree Lobby)

Wednesday 7:00 AM - 8:00 AM

Committee Meetings III - Education (D136), Finance (D135), Newsletter (F152)

Wednesday 8:00 AM - 9:15 AM

Plenary II & Awards

8:00 **AEESP Lecture: Anti-racist air-quality modeling** Julian Marshall, *University of Washington*

**Moderator** Albert Presto, *Carnegie Mellon University*

9:00 **Sinclair and Whitby Awards Presentation, AS&T Outstanding Publication and Outstanding Reviewer Awards Presentation** Kelley Barsanti, Jonathan P. Reid, *National Center for Atmospheric Research, University of Bristol*

Wednesday 9:00 AM - 5:00 PM

Exhibits Open

Wednesday 9:15 AM - 9:45 AM

Coffee Break with Exhibitors

Wednesday 9:45 AM - 11:30 AM

Technical Session 5: Platform

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5AC AEROSOL CHEMISTRY III: CHEMICAL AND PHYSICAL PROPERTIES OF AEROSOL PARTICLES

PORTLAND BALLROOM – Coty Jen and Aduroja Oyedoyin, chairs

**5AC.1 Characterizing the Rate of Water Diffusion in Viscous Particles and Gels Containing Organic and Inorganic Material.**

9:45 CRAIG SHELDON, James F. Davies, *University of California, Riverside*

**5AC.2 Investigating Influence of Particle Size on Viscosity.** SUNANDAN MAHANT, Jefferson Snider, Markus Petters, *North*

10:00 *Carolina State University*



- 5AC.3 Properties of Surfactants in Size-Resolved Atmospheric Aerosol Particles.** AMANDA FROSSARD, Tret Burdette, Rachel Bramblett, Kathryn Zimmermann, *University of Georgia*  
10:15
- 5AC.4 Exploring the Phase Behavior of Biomass Burning Aerosols.** NEALAN GERREBOS, F.K.A. Gregson, Julia Zaks, Allan K. Bertram, *University of British Columbia*  
10:30
- 5AC.5 Quantified Volatility Distributions from Monoterpene SOA.** DAVID BELL, Jun Zhang, Jens Top, Natasha Garner, Fabian Mahrt, Mihnea Surdu, André S. H. Prévôt, Imad El Haddad, *Paul Scherrer Institute*  
10:45
- 5AC.6 Simultaneously Characterizing the Volatility Distribution and Phase State of Laboratory-Generated and Ambient Aerosol Particles with a Vocus 2R Chemical Ionization Mass Spectrometer.** Sining Niu, Jordan Krechmer, Harald Stark, YUE ZHANG, *Texas A&M University*  
11:00
- 5AC.7 Evaluation of Regional-Scale Model Parameters in the Prediction of Isoprene Epoxydiol (IEPOX)-Derived Secondary Organic Aerosols (SOA) Generated during Laboratory Chamber Experiments.** ALEXANDRA NG, Yuzhi Chen, Jaime Green, Jason Surratt, Haofei Zhang, William Vizuete, *University of North Carolina at Chapel Hill*  
11:15

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5CC AEROSOLS, CLOUDS AND CLIMATE I

E147/148 – Cari Dutcher and Kayane Dingjilian, chairs

- 5CC.1 First Results from Coastal Cloud Chemistry at Mt. Soledad during the Eastern Pacific Cloud Aerosol Precipitation Experiment (EPCAPE).** LYNN RUSSELL, Abigail Williams, Jeremy Dedrick, Christian Pelayo, Nattamon (Jeep) Maneenoi, Sourita Saha, Sanghee Han, Elavarasi Ravichandran, Markus Petters, Catherine Banach, Veronica Berta, Suzanne E. Paulson, Rachel Chang, Laura-Helena Rivellini, Jonathan Abbatt, Alex K.Y. Lee, Jeremy Wentzell, Michael Wheeler, John Liggi, EPCAPE Science Team, *Scripps/UCSD*  
9:45
- 5CC.2 pH-Dependence of Brown Carbon Optical Properties in Cloud Water.** CHRISTOPHER HENNIGAN, Michael McKee, Vikram Pratap, Bryanna Boegner, Jasper Reno, Lucia Garcia, Madison McLaren, Sara Lance, *University of Maryland, Baltimore County*  
10:00
- 5CC.3 Aerosol Properties Observed during the CACTI Campaign in Argentina.** JEROME FAST, Fan Mei, Jason Tomlinson, Mikhail Pekour, Beat Schmid, Alla Zelenyuk, Arthur J. Sedlacek, Maria Zawadowicz, Bin Zhao, Po-Lun Ma, Adam Varble, *Pacific Northwest National Laboratory*  
10:15
- 5CC.4 Rapid Changes in the Particle Mixing State through Cloud Processing.** LAURA FIERCE, Payton Beeler, Alla Zelenyuk, ManishKumar Shrivastava, Nahin Ferdousi, *Pacific Northwest National Laboratory*  
10:30
- 5CC.5 Strikingly Positive Contributions of New Particle Formation to Cloud Condensation Nuclei under Low Supersaturation in China Based on Improved Numerical Models.** YANG GAO, Chupeng Zhang, Shangfei Hai, Yuhang Wang, Shaoqing Zhang, Lifang Sheng, Bin Zhao, Shuxiao Wang, Jingkun Jiang, Xin Huang, Xiaojing Shen, Junying Sun, Aura Lupascu, ManishKumar Shrivastava, Jerome Fast, Wenxuan Cheng, Xiuwen Guo, Ming Chu, Nan Ma, Juan Hong, Qiaoqiao Wang, Xiaohong Yao, Huiwang Gao, *Ocean University of China*  
10:45
- 5CC.6 On Nucleation Pathways and Particle Size Distribution Evolutions in Stratospheric Aircraft Exhaust Plumes with H<sub>2</sub>SO<sub>4</sub> Enhancement.** FANGQUN YU, Gan Luo, Arshad Nair, Jason Herb, Alex Wong, *The State University of New York at Albany*  
11:00
- 5CC.7 Investigating the Spatio-Temporal Controls of Summertime Sea Breeze Circulation on the Atmospheric Aerosol Environment in the Houston Coastal Region.** TAMANNA SUBBA, Michael Jensen, Ashish Singh, Rebecca Trojanowski, Dié Wang, Maria Zawadowicz, Chongai Kuang, *Brookhaven National Laboratory*  
11:15

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5DI SYMPOSIUM: DISPARATE IMPACTS OF AEROSOLS III: IDENTIFYING DISPARATE EXPOSURES IN NORTH AMERICA

F150 – Mike Kleeman and Jessica Tryner, chairs

- 5DI.1 Identification of Neighbourhood Hotspots via the Cumulative Hazard Index: Results from a Community-Partnered Low-cost Sensor Network Deployment.** Sakshi Jain, Rivkah Gardner-Frolick, Nika Martinussen, Dan Jackson, Amanda Giang, NAOMI ZIMMERMAN, *University of British Columbia*  
9:45
- 5DI.2 Spatial Modeling of Ambient PM2.5 and Ozone Exposure in Western Massachusetts Using a Low-Cost Air Quality Monitoring Sensor Network.** DONG GAO, Jiarong Qi, Alexander De Jesus, Kerry Kelly, Sarita Hudson, Krystal Godri Pollitt, *Yale University*  
10:00
- 5DI.3 Community-Driven Air Justice: Insights from Distributed Air Sensing and Community Partnership in Boston, MA.** Scott Hersey, FRANCESCA MAJLUF, Eben Cross, Vedaant Kuchhal, Khue Pham, Sanju Jatti, *Franklin W. Olin College of Engineering*  
10:15
- 5DI.4 Environmental Justice Assessment of Formaldehyde Exposure during a Photochemical Pollution Episode in Southeast Texas.** YITING LI, Yusheng Zhao, Michael Kleeman, *University of California, Davis*  
10:30
- 5DI.5 Physico-Chemical Characterization of Dust: A Comprehensive Study of Particulate Matter (PM) in the Environmental Justice (EJ) Community of Eastern Coachella Valley (ECV).** CHRISTOPHER LIM, Mohammad Sowlat, Julia Montoya-Aguilera, Steven Boddeker, Freyja Berg Lopez, Laura Saucedo, Cynthia Berg, Angela Haar, Stephen Dutz, James Rothchild, Eric Holden, Sina Hasheminassab, Matic Ivančić, Martin Rigler, Payam Pakbin, Andrea Polidori, Jason Low, *South Coast Air Quality Management District*  
10:45
- 5DI.6 Comparing Outdoor, Indoor, and Personal PM Levels in an Environmental Justice Community in California's Central Valley.** JESSICA TRYNER, Grace Kuiper, Sherry WeMott, Bonnie Young, Luis Hernandez Ramirez, John Volckens, Sheryl Magzamen, *Colorado State University*  
11:00
- 5DI.7 Autonomous Network of Low-Cost PM2.5 and Ozone Sensors to Study Spatial Distribution and Exposure in Underserved Agricultural Communities in California.** Akshay Kumar, Daniel Polinski, Casey Quinn, Sheryl Magzamen, Nayamin Martinez, Genevieve Amsalem, SHANTANU JATHAR, *Colorado State University*  
11:15

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5HA HEALTH RELATED AEROSOLS IV: LUNG DEPOSITION, EXPOSURE, AND HEALTH EFFECTS

E145/146 – Cesunica Ivey and Alexa Canchola, chairs

- 5HA.1 Route of Pulmonary Administration of Aerosols and the Size of Aerosols Significantly Affects Particle Deposition and Cellular Recruitment.** RYAN W. DROVER, Keziah Yisrael, Malia L. Shapiro, Martha Anguiano, Nala Kachour, Qi Li, Emily Tran, David R. Cocker III, David D. Lo, *University of California, Riverside*  
9:45
- 5HA.2 CFPD-PK Modeling of Inhaled Medical Cannabis: The Role of Puffing Waveform and Holding Time in Delivered Doses.** TED SPERRY, Yu Feng, Chen Song, Zhiqiang Shi, Qi Li, *Oklahoma State University*  
10:00
- 5HA.3 Introducing the Air Pollution Exposure in Child Care Settings (APECCS) Study: Measuring Indoor/Outdoor Air Quality at Child Care Centers and Residential Environments in the Atlanta Metropolitan Area.** ROBY GREENWALD, Yu Jung Lin, Donghai Liang, Christina H. Fuller, *Georgia State University*  
10:15
- 5HA.4 Different Languages Using Caused Diversity in Exhaled Aerosol Emission.** XINYUE LI, Maosheng Yao, *Peking University*  
10:30
- 5HA.5 The Clearance of Little Cigar Smoke Particles in the Lower Respiratory Tracts of Sprague Dawley Rats.** Anthony S. Wexler, KAISEN LIN, *University of California, Davis*  
10:45
- 5HA.6 Short-term Neurological Impact of Cooking UFPs.** Motahareh Naseri, Fatemeh Amouei Torkmahalleh, Seyedeh Fatemeh Seyedebrahimi, Seyedeh Ayeh Esmaeilitalashi, Atousa Amouei Torkmahalleh, Mohammad Hossein Forouzi, Sahar Sadeghi, Mojtaba Jouzizadeh, Milad Malekitabrizi, Dhawal Shah, MEHDI AMOUEI TORKMAHALLEH, *University of Illinois at Chicago*  
11:00
- 5HA.7 A Whole-Body Ultra-Fine Aerosol Exposure Chamber for Dynamic Detection of Alzheimer's Disease Biomarkers in Mice.** JOSEPH V. PUTHUSSERY, August Li, Carla M. Yuede, John Cirrito, Rajan K. Chakrabarty, *Washington University in St. Louis*  
11:15

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5SS EXHIBITOR AND INSTRUMENT APPLICATION SHOWCASE I

EXHIBIT HALL – Amy Sullivan and Julie Stone, chairs

**5SC.1 The Trials and Tribulations of Scanning Electrical Mobility Measurements.** FRED BRECHTEL, Andy Corless, Xerxes Lopez-9:45 Yglesias, *Brechtel Mfg. Inc.*

**5SC.2 Insights on Indoor New Particle Formation Using the PSMPS – A Mobility Particle Size Spectrometer Capable of 10:30 Measuring Particles in the Size Range from 1.1 to 55 nm.** GERHARD STEINER, Satya Patra, Jinglin Jiang, Connor Keech, Joonas Vanhanen, Aki Pajunoja, Nusrat Jung, Brandon E. Boor, *Grimm Aerosol Technik Ainring*

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5SS SYMPOSIUM: AEROSOLS SPANNING SPATIAL SCALES IV

F151 – Antony Chen and Nicole June, chairs

**5SS.1 Integration of Ground Measurement Networks, Numerical Models, and Satellite Data in the Characterization of PM2.5 9:45 Levels in the US.** YANG LIU, *Emory University, Atlanta, GA*

**5SS.2 Fusing Surface Monitors, Satellites and Forecasts for Near-real-time Air Quality.** BARRON HENDERSON, Pawan Gupta, 10:00 Shobha Kondragunta, Phil Dickerson, Alqamah Sayeed, Hai Zhang, *EPA*

**5SS.3 Assessment of PM2.5 Air Pollutant Health Damages with the REACH Reduced-Complexity Model.** MEDINAT AKINDELE, 10:15 Peter Adams, Nicholas Muller, Rebecca Garland, *Carnegie Mellon University*

**5SS.4 Assessing PM2.5 Oxidative Potential in Fairbanks, Alaska Winter.** YUHAN YANG, Peter F. DeCarlo, Ellis Robinson, Magesh 10:30 K. Mohan, Jingqiu Mao, James Campbell, Rodney J. Weber, *Georgia Institute of Technology*

**5SS.5 Aerosol Perturbations in the Upper Troposphere and Lower Stratosphere due to Volcanic and Wildfire Injections: 10:45 Insights from the DCOTSS Airborne Mission.** YAOWEI LI, John Dykema, Corey Pedersen, Jean-Paul Vernier, Michael Fromm, David Peterson, Xiaoli Shen, Nicole June, Amit Pandit, Jeffrey R. Pierce, Daniel Cziczko, Frank Keutsch, *Harvard University*

**5SS.6 Integrating AOD-based PM2.5 Retrieval, Land Use Regression, and Machine Learning to Estimate the Spatiotemporal 11:00 Variation of Ions in PM2.5 across Taiwan.** KANG LO, Yee-Lin Wu, Tang-Huang Lin, Chang-Fu Wu, *National Taiwan University*

**5SS.7 Evaluation of High-resolution GEOS-Chem Nested Grid Simulations over Africa Using a Novel Surface Aerosol and Gas 11:15 Dataset and Satellite Observations.** DANIEL WESTERVELT, Benjamin Yang, *Columbia University*

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5UA URBAN AEROSOLS IV: ROADWAYS, METALS, AND MOBILE MEASUREMENTS

E142-144 – Douglas Collins and Philip Hopke, chairs

**5UA.1 Comparative Analysis of Cooking Emission Markers in Field Campaigns using the AMS and the Offline FIGAERO-CIMS 9:45 Method.** SUNHYE KIM, Abhishek Anand, Pavithra Ethirajan, Jenna DeVivo, Albert A. Presto, *Carnegie Mellon University*

**5UA.2 Elemental Content of Brake and Tire Wear PM2.5 and PM10 at Near-Road Environments.** BRENDA LOPEZ, Xiaoliang 10:00 Wang, L.-W. Antony Chen, Tianyi Ma, David Mendez-Jimenez, Ling Cobb, Chas Frederickson, Ting Fang, Brian Hwang, Manabu Shiraiwa, Minhan Park, Kihong Park, Qi Yao, Seungju Yoon, Heejung Jung, *University of California, Riverside*

**5UA.3 Tire Wear Emissions by Highways: Impact of Season and Surface Type.** Jason Miech, Pierre Herckes, MATTHEW FRASER, 10:15 *Arizona State University*

**5UA.4 Characterization of In-Use Heavy-Duty Diesel Truck Pollutant Emission Rates and Emission Control Technology 10:30 Performance.** CHELSEA V. PREBLE, Rebecca A. Sugrue, Thomas W. Kirchstetter, *University of California, Berkeley*

**5UA.5 Spatial Variations and Health Implications of Resuspended Road Dust Particulate Matter.** CHEOL H. JEONG, Cuilian Fang, 10:45 Eeman Abdulkadir, Nathan Hilker, Taylor Edwards, Greg J. Evans, *SOCAAR, University of Toronto*

**5UA.6 High Time-Resolution Measurements of Particulate Metals in Environmental Justice Communities.** HANYANG LI, Miguel 11:00 Zavala-Perez, Wayne Linklater, Anthony S. Wexler, *San Diego State University*

**5UA.7 Community-Scale Monitoring of Particle-Bound Metals in Two Environmental Justice (EJ) Communities in the South Coast Air Basin: I. Mobile Monitoring Results.** MOHAMMAD SOWLAT, Christopher Lim, Steven Boddeker, Julia Montoya-Aguilera, Faraz Ahangar, Sina Hasheminassab, Payam Pakbin, Andrea Polidori, Jason Low, *South Coast Air Quality Management District*

Wednesday 11:30 AM - 1:00 PM  
AS&T Editorial Board Luncheon (D136)

Wednesday 11:30 AM - 1:00 PM  
Early Career Lunch Event (Ballroom)

Wednesday 12:00 PM - 1:00 PM  
Committee Meetings IV- Development (D135), Membership (F152)

Wednesday 1:00 PM - 3:00 PM  
Technical Session 6: Platform

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6AC AEROSOL CHEMISTRY IV: GENERAL AEROSOL CHEMISTRY  
*PORTLAND BALLROOM* – Amanda Frossard and Diego Calderon-Arrieta, chairs

**6AC.1 Molecularly Revealing 3D Structure of Organic Aerosol Particles Using Mass Spectrometry Imaging.** ZIHUA ZHU, Fan 1:00 Mei, Jeffrey Dhas, Zezhen Cheng, *Pacific Northwest National Laboratory*

**6AC.2 Reactions of Nitrate in Aqueous Droplets Initiated by Triplet Energy Transfer.** PYEONGEUN KIM, Christian Boothby, Vicki 1:15 Grassian, Robert Continetti, *University of California San Diego*

**6AC.3 Structures and Formation Mechanisms of Molecular Products in Pinene Secondary Organic Aerosol.** CHRISTOPHER 1:30 KENSETH, Samir Rezgui, Jing Chen, Nathan Dalleska, Henrik Kjaergaard, Brian Stoltz, Joel A. Thornton, Paul Wennberg, John Seinfeld, *California Institute of Technology*

**6AC.4 Heterogeneous Reaction of Protein Samples with Ambient Urban Air: Ratio of Nitration and Oligomerization Products.** Rachel L. Davey, Alyssa Knaus, Paola Gascot, ALEKSANDRA VOLKOVA, Erick Mattson, J. Alex Huffman, *University of Denver*

**6AC.5 Exploring Nighttime Uptake of HONO and Nitrite Oxidation on Coarse Mode Aqueous Aerosol Particles Utilizing the Aerosol Optical Tweezers.** Luke Monroe, Jack Hall, Graham Thornhill, RYAN SULLIVAN, *Carnegie Mellon University*

**6AC.6 Dynamics at the Air-Water Interface Determine the Ozonolysis Kinetics of Anions in Single Microdroplets.** ALEXANDER 2:15 PROPHET, Kevin R. Wilson, *Lawrence Berkeley National Laboratory*

**6AC.7 Assessing the Impact of Atmospheric Photochemical Aging on Organic Aerosol Tracers Derived From Burning African Biomass Relevant to Botswana.** ADRIENNE LAMBERT, Cade Christensen, Vaios Moschos, Megan Mouton, MarkieSha James, Marc Fiddler, Barbara Turpin, Solomon Bililign, Jason Surratt, *University of North Carolina at Chapel Hill*

**6AC.8 Unexpectedly Rapid Removal of Sodium Methanesulfonate upon Heterogeneous OH Oxidation Revealed by Smog Chamber Experiment.** SZE IN MADELEINE NG, Zi Jun Li, Angela Buchholz, Iida Pullinen, Sneetha M. Kommula, Aki Nissinen, Mitchell Alton, Pasi Yli-Pirilä, Merete Bilde, Annele Virtanen, Marianne Glasius, Siegfried Schobesberger, Man Nin Chan, *The Chinese University of Hong Kong*

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6BA BIOAEROSOLS II

E145/146 – Jana Kesavan and SriPriya Nannu Shankar, chairs

**6BA.1 Single Particle Measurements and Machine Learning Approaches to Study Vertical Distribution of Biological Particles.**

1:00 SWARUP CHINA, Yingxiao Zhang, Nurun Nahar Lata, Zezhen Cheng, Darielle Dexheimer, Fan Mei, *Pacific Northwest National Laboratory*

**6BA.2 Antibiotic Resistance Genes in Air Near Farms.** DAVID KORMOS, Amy Pruden, Gabriel Isaacman-VanWertz, Jactone Ogejo,

1:15 Linsey Marr, *Virginia Tech*

**6BA.3 Behaviors of Gram-Positive and Gram-Negative Bacteria after Exposure to Aerosolization Stress.** BROOKE SMITH, Maria

1:30 King, *Texas A&M University*

**6BA.4 Abundance, Properties and Seasonal Variation of Bioaerosol Particles Observed during the SAIL Campaign.** ABU

1:45 SAYEED MD SHAWON, Katherine Benedict, Allison Aiken, *Los Alamos National Laboratory*

**6BA.5 On the Road: Car Cabin Air Filters Reveal Geographic Trends in Antimicrobial Resistance Genes across Canada.** PAUL

2:00 GEORGE, Marc Veillette, Florent Rossi, Amélia Bélanger Cayouette, Samantha Leclerc, Maosheng Yao, Nathalie Turgeon, Caroline Duchaine, *Université Laval*

**6BA.6 Autofluorescence Measurements of Primary Biological Aerosol Particles during Winter in Interior Alaska: The**

2:15 **Influence of Biomass Burning.** KAITLYN MCKINNEY, Saravanan Kanagaratnam, Anastasia Hewitt, Raghu Betha, Venky Shankar, *Texas Tech University*

**6BA.7 Targeted Virus Analysis of Aerosol Emissions from Wastewater Treatment Plant.** SHRUTI CHOUDHARY, Ayaaz Amirali,

2:30 Darlington Imhanzuaria, Mark Sharkey, Stephan Schurer, Dusica Vidovic, Chris Mason, Helena Solo-Gabriele, Pratim Biswas, *University of Miami*

**6BA.8 Bioaerosol Identification and Monitoring in Ireland.** DAVID O'CONNOR, Emma Markey, Jerry Clancy, Moises Martinez-

2:45 Bracero, *Dublin City University*

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6CA CARBONACEOUS AEROSOLS II: SOOT RESTRUCTURING AND MORPHOLOGY, MIXING STATE, AND OPTICAL PROPERTIES

F151 – Laura Fierce and Ryan Poland, chairs

**6CA.1 Soot Restructuring and Compaction: Mechanisms and Resulting Effective Density.** JOEL CORBIN, Timothy Sipkens, Robin

1:00 Modini, Martin Gysel, *National Research Council Canada*

**6CA.2 Mechanical Properties of Bare and Coated Soot Aggregates.** ALEXEI KHALIZOV, Ali Hasani, *New Jersey Institute of*

1:15 *Technology*

**6CA.3 Pore Structure Dynamics of Carbonaceous Particles by Surface and Internal Oxidation.** GEORGIOS A. KELESIDIS, Patrizia

1:30 Crepaldi, Sotiris Pratsinis, *Rutgers, The State University of New Jersey*

**6CA.4 Multiple Charging Effects on the CCN Activity of Black Carbon Particles.** OGOCHUKWU ENEKWIZU, Ernie R. Lewis, Arthur

1:45 J. Sedlacek, *Brookhaven National Laboratory*

**6CA.5 Modeling of Joint Capillary Condensation of Trace Chemicals and Water on Fractal Soot Aggregates.** ELLA IVANOVA, Ali

2:00 Hasani, Egor Demidov, Gennady Gor, Alexei Khalizov, *New Jersey Institute of Technology*

**6CA.6 Characterizations of Black Carbon Aerosols from Southeast U.S. Prescribed Fires and Western U.S. Wildfires.** ANDREW

2:15 METCALF, Dongli Wang, *Clemson University*

**6CA.7 Mapping Out the Absorption of Soot as a Function of Particle Mass Using CERMS and Laser-Induced Incandescence.**

2:30 RYM MEHRI, Joel Corbin, Timothy Sipkens, Fengshan Liu, Mark Johnson, Gregory Smallwood, *National Research Council Canada*

**6CA.8 Radiative Forcing of Black Carbon Containing Particles from Tethered Balloon Vertical Profiles at the Southern Great**

2:45 **Plains Atmospheric Radiation Measurement Site.** SUSAN MATHAI, Nurun Nahar Lata, Zezhen Cheng, Fan Mei, Darielle Dexheimer, Swarup China, Claudio Mazzoleni, *Michigan Technological University*

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6CC AEROSOLS, CLOUDS AND CLIMATE II

E147/148 – Alex Lee and Chenyang Bi, chairs

**6CC.1 Black Carbon Aerosols Properties for Remote Sensing and Radiative Forcing Applications.** HANS MOOSMÜLLER, Greg

1:00 Schuster, Eduard Chemyakin, Snorre Stamnes, Jacek Chowdhary, *Desert Research Institute*

**6CC.2 Determination of the instantaneous aerosol-radiation interactions (direct effects) using High Spectral Resolution Lidar**

1:15 **(HSRL)-derived aerosol type-specific optical properties and CATCH algorithm.** BETHANY SUTHERLAND, Nicholas Meskhidze, *NC State University*

**6CC.3 Chemical Characterization and Single-Particle Measurements of Soot Aerosol in Houston: Insights into Sources,**

1:30 **Processes, and Black Carbon Mixing States.** RYAN FARLEY, James E. Lee, Laura-Helena Rivellini, Alex K.Y. Lee, Rachael Dal Porto, Kyle Gorkowski, Abu Sayeed Md Shawon, Katherine Benedict, Allison Aiken, Manvendra Dubey, Christopher Cappa, Qi Zhang, *University of California, Davis*

**6CC.4 Changing Climate and the Toxicity of Wildfire-derived Brown Carbon Particles: A Literature Synthesis and Science**

1:45 **Assessment for Evaluating Potential Human Health Impacts.** BROOKE L. HEMMING, Anne E. Barkley, *U.S. Environmental Protection Agency*

**6CC.5 Occurrence and Properties of Wildfire Aerosol Plumes Measured at the High-Altitude Station Jungfraujoch.** BENJAMIN

2:00 BREM, Nora Nowak, Nicolas Bukowiecki, Martine Collaud Coen, Martin Steinbacher, Martin Vollmer, Stephan Henne, Reimann Stefan, Martin Gysel, *Paul Scherrer Institute*

**6CC.6 The Effects of Acid-Catalyzed Multiphase Chemistry on the Hygroscopicity and Deposition Ice Nucleation of Complex**

2:15 **Inorganic-Organic Mixed Aerosols.** Sining Niu, Christopher Rapp, Yeaseul Kim, Zezhen Cheng, Gregory W. Vandergrift, Jason Surratt, Gourihar Kulkarni, Daniel Cziczko, Alla Zelenyuk, Swarup China, YUE ZHANG, *Texas A&M University*

**6CC.7 Microplastics as Ice Nucleating Particles in the Atmosphere.** HEIDI L. BUSSE, Devaka Ariyasena, Miriam Freedman, *The*

2:30 *Pennsylvania State University*

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6DI SYMPOSIUM: DISPARATE IMPACTS OF AEROSOLS IV: IDENTIFYING DISPARATE EXPOSURES GLOBALLY

F150 – Daniel Westervelt and Xuan Liu, chairs

**6DI.1 Elemental Characterization of Ambient Particulate Matter for a Globally Distributed Monitoring Network:**

1:00 **Methodology and Implications.** XUAN LIU, Randall Martin, Jay R. Turner, *Washington University in St. Louis*

**6DI.2 Source Attribution of PM<sub>2.5</sub> and Health Effects in Kinshasa, Democratic Republic of Congo.** DANIEL WESTERVELT,

1:15 Paulson Kasereka, Garima Raheja, Jean-Luc Balogije Selenge, Rodriguez Yombo Phaka, V. Faye McNeill, Guillaume Kiyombo Mbela, Marianthi-Anna Kioumourtzoglou, Joel Nkiama Konde, Jean-Pierre Mfuamba Mulumba, Djibi Buenimio, *Columbia University*

**6DI.3 Determinants of Air Pollution Exposures in Urban Charcoal-Using Households in Sub-Saharan Africa.** STEPHANIE

1:30 PARSONS, Joseph Pedit, Cheryl Weyant, Pamela Jagger, Andrew Grieshop, *North Carolina State University*

- 6DI.4 Understanding Spatiotemporal Variability and Local Sources of Indoor and Outdoor PM2.5 across Urban and Rural Neighborhoods in New York State.** Marco Eugene, SANCHITA PAUL, Farid Barak, Md. Aynul Bari, *University at Albany, SUNY*  
1:45
- 6DI.5 From Source Characterization to Ambient Measurements to Dissemination: An Overview of the NAMaSTE Project in the Kathmandu Valley of Nepal.** PETER F. DECARLO, Benjamin Werden, Michael R. Giordano, Erin Katz, Md. Robiul Islam, Thilina Jayarathne, Tianyi Li, Elizabeth Stone, Chelsea Stockwell, Ted Christian, Robert J. Yokelson, Eri Saikawa, Donald Blake, Simone Meinardi, Isobel Simpson, Arnico Panday, Prakash Bhawe, Siva Praveen Puppala, Douglas Goetz, Sagar Adhikari, Rashmi Shrestha, *Johns Hopkins University*  
2:00
- 6DI.6 Seasonal Variability of Indoor Air Pollutants and Their Effect on Health in Lucknow City- Metropolitan City (Capital of the Most Polluted State in the World).** ANAM TAUSHIBA, Rahila Rahman, Alfred Lawrence, *Integral University Lucknow, India*  
2:15
- 6DI.7 EASIUR-HR: A Model to Evaluate Exposure Inequality Caused by Ground-Level Sources of Primary Fine Particulate Matter.** BRIAN GENTRY, Allen Robinson, Peter Adams, *Carnegie Mellon University*  
2:30
- 6DI.8 Black Carbon Measurements in Multiple Cities of Sub-Saharan Africa with Low Cost Image-Reflectance Method.** ABHISHEK ANAND, Albert Presto, Suryaprakash Kompalli, Eniola Ajiboye, Evelyne Toure, Julien Bahino, Sylvain Gnamien, *Carnegie Mellon University*  
2:45
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#### 6IA INDOOR AEROSOLS I

E142-144 – Rachel O'Brien and Doug Collins, chairs

- 6IA.1 Assessing the Influence of Humidity and Surface Reservoirs on Indoor Ammonia Dynamics at the CASA Experiment: A Modeling Study.** Marc Webb, Glenn Morrison, Stephen Zimmerman, Michael Link, Dustin Poppendieck, Marina Vance, Delphine K. Farmer, BARBARA TURPIN, *University of North Carolina at Chapel Hill*  
1:00
- 6IA.2 Chemical Characteristics of Indoor Aerosol Particles and Surface Films.** RACHEL O'BRIEN, Amy Hrdina, Cate Shirilla, Emily Heery, Kathryn Mayer, Dustin Poppendieck, Marina Vance, Delphine K. Farmer, *University of Michigan*  
1:15
- 6IA.3 Partitioning of Neutral Per- and Polyfluoroalkyl Substances (PFAS) Between Indoor Air and Various Reservoirs in North Carolina Homes: Results from the Indoor PFAS Assessment (IPA) Campaign.** CLARA EICHLER, Naomi Chang, Jiaqi Zhou, Daniel Amparo, Elaine Cohen Hubal, Jason Surratt, Glenn Morrison, Barbara Turpin, *UNC-Chapel Hill*  
1:30
- 6IA.4 Impact of Preexisting Particles' Type and Concentration on Phase Partitioning of Indoor Semivolatile Organic Compounds (SVOCs).** SOHYEON JEON, Karolina Cysneiros de Carvalho, Jhao-Hong Chen, Brent Williams, *Washington University in St. Louis*  
1:45
- 6IA.5 Disinfection Byproduct Formation via Multiphase Hypochlorous Acid Chemistry.** DOUGLAS COLLINS, Christopher Azzam, Risa Kanefsky, *Bucknell University*  
2:00
- 6IA.6 Modern Buildings Act as a Dynamic Source and Sink for Urban Air Pollutants.** TIANREN WU, Antonios Tasoglou, Danielle Wagner, Jinglin Jiang, Heinz Huber, Philip Stevens, Nusrat Jung, Brandon E. Boor, *University of Cincinnati*  
2:15
- 6IA.7 Assessing VOC Emission Rates from an Indoor Surface Using a Flux Chamber and PTR-MS.** HAN N. HUYNH, Jenna Ditto, Jie Yu, Michael Link, Dustin Poppendieck, Delphine K. Farmer, Marina Vance, Jonathan Abbatt, *University of Toronto*  
2:30
- 6IA.8 Investigating the Impacts of Building HVAC Systems on Aerosol Composition and Concentration.** XINXIU TIAN, Bryan Berman, Bryan Cummings, Shannon Capps, Michael Waring, Peter F. DeCarlo, *Johns Hopkins University*  
2:45
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#### 6SC EXHIBITOR AND INSTRUMENT APPLICATION SHOWCASE II

EXHIBIT HALL – Fred Brechtel and Andy Grieshop, chairs



**6SC.1 Automated Tandem Aerosol Classifier Experiments.** JULIE PONGETTI, Timothy Sipkens, Morteza Kiasadegh, Jason S. Olfert, 1:00 Jonathan Symonds, *Cambustion Ltd*

**6SC.2 PTR-TOF: Real Time Analysis of Volatile and Condensed Organics on a Molecular Composition Level.** MARKUS MUELLER, 1:45 Tobias Reinecke, Todd Rogers, *IONICON Analytik GmbH., Innsbruck, Austria*

**6SC.3 Hands-On Instrumentation Tutorial on Operating the Particles Plus Water Condensation Particle Counter (CPC) and Summarizing Collected Data.** SOTIRIOS PAPATHANASIOU, *Particles Plus* 2:30

Wednesday 3:00 PM - 3:30 PM  
Coffee Break with Exhibitors

Wednesday 3:30 PM - 5:00 PM  
Technical Session 7: Platform

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7AC AEROSOL CHEMISTRY V: BIOMASS BURNING AND BROWN CARBON AEROSOL 2: CHAMBER MEASUREMENTS  
*PORTLAND BALLROOM* – Ran Zhao and Sze In Madeleine Ng, chairs

**7AC.1 Exploring the Hygroscopic Growth, Phase and Chemistry of Light-Absorbing Aerosol using Single Particle Levitation.** 3:30 JAMES F. DAVIES, Roya Bahreini, Malsha Amugoda, Prakriti Singh, Stephanie Salas, Erin Bowey, *University of California, Riverside*

**7AC.2 Unraveling the Link between Real-Time Light-Absorption Properties and Offline Molecular Composition of Brown Carbon Aerosol.** 3:45 VAIOS MOSCHOS, Cade Christensen, Marc Fiddler, Barbara Turpin, Solomon Bililign, Jason Surratt, *NCAT & UNC-Chapel Hill*

**7AC.3 Wildfire Emissions - Source Apportionment and Ageing Effects Analyses via Single-Particle Profiling of Polycyclic Aromatic Hydrocarbons.** 4:00 JOHANNES PASSIG, Ellen-Iva Rosewig, Julian Schade, Mika Ihalainen, Kerneels Jaars, Kajar Köster, Stefan Siebert, Olli Sippula, Markus Somero, Pasi Yli-Pirilä, Pieter G. van Zyl, Annele Virtanen, Ville Vakkari, Andreas Walte, Ralf Zimmermann, *Helmholtz Zentrum München and University of Rostock*

**7AC.4 Laboratory Constraints on Photochemical Processing of Biomass Burning-Derived Secondary Organic Aerosol.** 4:15 MARIA ZAWADOWICZ, Yuzhi Chen, John Shilling, Gregory W. Vandergrift, Tania Gautam, Swarup China, Arthur J. Sedlacek, *Brookhaven National Laboratory*

**7AC.5 Effects of Relative Humidity on Secondary Organic Aerosol and Brown Carbon Formation from Nighttime Oxidation of Furan and Pyrrole.** 4:30 KUNPENG CHEN, Caitlin Hamilton, Bradley Ries, Michael Lum, Raphael Mayorga, Linhui Tian, Roya Bahreini, Haofei Zhang, Ying-Hsuan Lin, *University of California, Riverside*

**7AC.6 Formation and Properties of Secondary Organic Aerosol from Gas-Phase and Aqueous-Phase Oxidation of Guaiacyl Acetone.** 4:45 CLAIRE MOFFETT, Gregory W. Vandergrift, Zezhen Cheng, Jie Zhang, Swarup China, ManishKumar Shrivastava, Alla Zelenyuk, *Pacific Northwest National Laboratory*

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7BA BIOAEROSOLS III  
*E145/146* – Lupita Montoya and Wendy Flores-Brito, chairs

**7BA.1 Modified Cascade Impactor for Liquid Collection and Increased Sampling Time.** 3:30 JANA KESAVAN, Daniel Mcgrady, Jerold Bottiger, *U.S. Army DEVCOM Chemical Biological Center*

**7BA.2 Detection and Isolation of Infectious SARS-CoV-2 Omicron Variants Collected from Residential Settings.** 3:45 WILLIAM VASS, Sripriya Nannu Shankar, John Lednický, Carlos Manzanás, Yuetong Zhang, Jessica Boyette, Jiayi Chen, Yuqiao Chen, Amin Shirkhani, Mo Washeem, Yang Yang, Z. Hugh Fan, Arantazu Eiguren-Fernandez, Chang-Yu Wu, *University of Florida*

**7BA.3 Estimating Indoor Airborne Concentrations of SARS-CoV-2.** ZOE HOSKIN, Jeffrey Siegel, Sarah R. Haines, *University of Toronto*

**7BA.4 Quantifying Aerosol Effective Air Change Rate in the USNS Mercy Hospital Ship, and Optimizing Placement of Infectious Patients and Portable HEPA Filter Mitigations.** SEAN KINAHAN, Donald Huston, David Silcott, Gabriel A. Lucero, Rick Arestad, Ryan Silcott, Braden Silcott, Blake Silcott, Peter Silcott, Daniel N. Ackerman, Joshua L. Santarpia, *National Strategic Research Institute*

**7BA.5 Airborne Microbiota and their Disease, Ecological and Social Implications for 31 Major Chinese Mainland Cities.** LU ZHANG, Maosheng Yao, *Peking University*

**7BA.6 Towards Preventing the next Pandemic: Hybrid Microfluidic Real-time Detection of Airborne Pathogens.** Nitin Jayakumar, Michael Caffrey, IGOR PAPROTNY, *University of Illinois at Chicago*

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#### 7CA CARBONACEOUS AEROSOLS III: LABORATORY EXPERIMENTS AND METHODS

F151 – Gregory W Vandergrift and Reina Buenconsejo, chairs

**7CA.1 Optical Properties of Biomass Burning Particles in the G-WISE Campaign.** ZACHARY MCQUEEN, Ryan Poland, Chase Glenn, Omar El Hajj, Kruthika Kumar, Anita Anosike, Robert Penland, Rawad Saleh, Joseph O'Brien, Geoffrey Smith, *University of Georgia*

**7CA.2 Initial Findings of the African Combustion Aerosol Collaborative Intercomparison Analysis (ACACIA) Pilot Project.** 3:45 MEGAN MOUTON, Vaios Moschos, Marc Fiddler, Kyle Gorkowski, Abu Sayeed Md Shawon, Nevil Franco, Katherine Benedict, Barbara Turpin, Jason Surratt, Manvendra Dubey, Solomon Bililign, *North Carolina A&T State University*

**7CA.3 Chemical Composition and Optical Properties of Laboratory-generated Biomass Burning Organic Aerosols.** FELIPE RIVERA-ADORNO, Jay Tomlin, Theo Paik, August Li, Kyla Siemens, Zezhen Cheng, Nurun Nahar Lata, Ryan Moffet, Matthew Fraund, Swarup China, Rajan K. Chakrabarty, Alexander Laskin, *Purdue University*

**7CA.4 Advanced Characterization of Aerosol Optical Properties, Sources and BrC Ageing With the New 9λ Aethalometer Model AE36s.** ASTA GREGORIČ, Bálint Alföldy, Gašper Lavrič, Matic Ivančič, Irena Ježek Brecej, Amalia Muñoz, Mila Ródenas, Ruben Soler, Esther Borrás, Teresa Vera, Eduardo Yubero, Rok Podlipec, Martin Rigler, *Aerosol d.o.o.*

**7CA.5 Atmospheric Lifetime of Primary Brown Carbon Can Be Increased by Ultraviolet Irradiation.** Habeeb Al-Mashala, Katrina Betz, Colton Calvert, Jace Barton, Elevia Bruce, ELIJAH SCHNITZLER, *Oklahoma State University*

**7CA.6 Modelling the Response of Tar Brown Carbon (Tarballs) to Pulsed Laser-induced Incandescence (P-LII).** FENGSHAN LIU, Joel Corbin, Timothy Sipkens, Gregory Smallwood, *National Research Council Canada*

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#### 7CC AEROSOLS, CLOUDS AND CLIMATE III

E147/148 – Chris Hennigan and Ellie Browne, chairs

**7CC.1 Quantifying the Surface Tension of Aerosol through Single Droplet Measurements and Modeling Surfactant Partitioning.** ALISON BAIN, Kunal Gosh, Nønne L. Prisle, Bryan R. Bzdek, *University of Bristol*

**7CC.2 Comprehensive Analysis of Particle Growth Rates at an Agricultural Site.** ELEANOR BROWNE, Jennifer Berry, Bri Dobson, Daniel Katz, *University of Colorado Boulder*

**7CC.3 Cloud Condensation Nuclei Activity of Internally Mixed Particles at a Remote Marine Free Troposphere Site in the North Atlantic Ocean.** ZEZHEN CHENG, Megan Morgenstern, Silvia Henning, Bo Zhang, Greg Roberts, Matthew Fraund, Matthew A. Marcus, Nurun Nahar Lata, Paulo Fialho, Lynn Mazzoleni, Birgit Wehner, Claudio Mazzoleni, Swarup China, *Pacific Northwest National Laboratory*

- 7CC.4 Aircraft Measurements Reveal Size and Mixing State of Individual Aerosol Particles Dictate Their Activation into Cloud Droplets.** ALLA ZELENYUK, Georges Saliba, David Bell, Kaitlyn Suski, Jerome Fast, Gourihar Kulkarni, Fan Mei, Johannes Mülmenstädt, Mikhail Pekour, John Shilling, Jason Tomlinson, Adam Varble, Jian Wang, Joel A. Thornton, Dan Imre, *Pacific Northwest National Laboratory*  
4:15
- 7CC.5 Turbulence-Aerosol-Cloud Interactions: Implications for Drizzle Initiation in the Presence of Ordinary and Giant Cloud Condensation Nuclei.** ROBERT MCGRAW, Yangang Liu, Virendra Ghate, *Brookhaven National Laboratory*  
4:30
- 7CC.6 Positive and Negative CCN Drizzle Relationships in Cumulus and Stratus Clouds.** JAMES HUDSON, Stephen Noble, *Desert Research Institute*  
4:45
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7DI SYMPOSIUM: DISPARATE IMPACTS OF AEROSOLS V: IDENTIFYING DISPARATE TRANSPORTATION-RELATED EXPOSURES  
F150 – Albert Presto and Yifang Zhu, chairs

- 7DI.1 Air Pollution Exposure Disparities Related to Sustainable Aviation Fuel in California.** MICHAEL KLEEMAN, Yiting Li, Colin Murphy, Jinwook Ro, *University of California, Davis*  
3:30
- 7DI.2 Environmental Justice Implications of Distributive Equity and Near-Roadway Air Quality from Zero-Emission Vehicle Adoption in California.** QIAO YU, Brian Yueshuai He, Jiaqi Ma, Yifang Zhu, *University of California, Los Angeles*  
3:45
- 7DI.3 Environmental Health, Racial/Ethnic Health Disparity, and Climate Impacts of Inter-Regional Freight Transport in the United States.** MANINDER THIND, Chris Tessum, Julian Marshall, *University of Washington, Seattle*  
4:00
- 7DI.4 Household and Mobility-Influenced Personal PM<sub>2.5</sub> Exposures for a Rail-Impacted Environmental Justice Community.** Ivette Torres, Khanh Do, Andrea Delgado, Charlotte Mourad, Haofei Yu, CESUNICA IVEY, *University of California, Berkeley*  
4:15
- 7DI.5 Ozone Exposure Disparities in Future Low-Carbon Emissions Scenarios in Southern California.** Yusheng Zhao, Yiting Li, Yin Li, Anikender Kumar, MICHAEL KLEEMAN, *University of California, Davis*  
4:30
- 7DI.6 Fine Particulate Matter Disparities in Kansas City, MO, are Significant and Persist Across the Past Decade.** Shreeram Ojha, AMY CHRISTIANSEN, *University of Missouri - Kansas City*  
4:45
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7IA INDOOR AEROSOLS II

E142-144 – Brandon Boor and Anita Avery, chairs

- 7IA.1 Evaluation of Long-Term Changes in HVAC Filtration Efficiency and Airflow Resistance: Implications for Indoor Aerosol Concentrations and Building Energy Consumption.** Chunxu Huang, Nusrat Jung, BRANDON E. BOOR, *Purdue University*  
3:30
- 7IA.2 Effectiveness of In-Duct Ionization in a Real-World Lecture Hall.** DAVID KORMOS, Nishit Shetty, Linsey Marr, *Virginia Tech*  
3:45
- 7IA.3 Performance of Portable Air Cleaners in Reducing Particulate Matter in Real-World Application Scenarios.** Frederic T. Lu, Robert Laumbach, Alicia Legard, Nirmala Thomas Myers, Kathleen Black, Pamela Ohman-Strickland, Shahnaz Alimokhtari-V, Adriana De Resende, Leonardo Calderón, GEDIMINAS MAINELIS, Howard Kipen, *Rutgers, The State University of New Jersey*  
4:00
- 7IA.4 Variability in Indoor Dust Surface Concentrations and Size Distributions among Urban and Suburban Homes in the U.S..** SATYA PATRA, Brian Magnuson, Iane Gomes, Laura Ajala, Paige Thompson, Orit Herzberg, Meghan Kalvey, Emily Halpern, Alexander Laskin, Laura Claxton, Karen Adolph, Brandon E. Boor, *Purdue University*  
4:15
- 7IA.5 Chemical and Toxicant Analysis of House Dust in Urban Versus Suburban Areas.** EMILY HALPERN, Killian MacFeeley, Lauren Heirty, Maria Misovich, Christopher P. West, Satya Patra, Brian Magnuson, Brandon E. Boor, Paige Thompson, Laura Claxton, Orit Herzberg, Meghan Kalvey, Karen Adolph, Alexander Laskin, *Purdue University*  
4:30

**71A.6 Particle and Gas-phase Evaluation of Air Cleaners Under Indoor Wildfire Smoke Conditions.** BRETT STINSON, Baorong Luo, Aurelie Laguerre, Elliott Gall, *Portland State University*

Wednesday 5:00 PM - 6:00 PM

Working Group Meetings 2: Aerosol Physics (E147/148), Atmospheric Aerosols (E145/146), Bioaerosols (F151), Control and Mitigation Technology (F150), Indoor Aerosols and Aerosol Exposure (E142-144)

Wednesday 6:00 PM - 7:00 PM

Annual Business Meeting (E145/146)

#### Thursday

Thursday 7:00 AM - 8:00 AM

Committee Meetings V - Conference (F152), Publications (D135), Representation and Equity Affairs (D136), Bylaws (E147/148)

Thursday 8:00 AM - 9:15 AM

Plenary III & Awards

8:00 **Lundgren-Marple Lecture: Synergies Between Aerosol Measurements from Satellites and In-Situ at the Nose Level**

Vanderlei Martins, *University of Maryland, Baltimore County*

**Moderator** Hans Moosmuller, *Desert Research Institute*

9:00 **Liu and Mercer Awards Presentations** Kelley Barsanti, *National Center for Atmospheric Research*

Thursday 9:00 AM - 4:00 PM

Exhibits Open

Thursday 9:15 AM - 9:45 AM

Coffee Break with Exhibitors

Thursday 9:45 AM - 11:30 AM

Technical Session 8: Platform

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8AC AEROSOL CHEMISTRY VI: SOA MEASUREMENTS AND MODELING

PORTLAND BALLROOM – Yue Zhang and Claire Moffett, chairs

**8AC.1 Effects of Volatility, Viscosity, and Non-ideality on Particle-Particle Mixing Timescales of SOA.** MEREDITH SCHERVISH,

9:45 Manabu Shiraiwa, *University of California, Irvine*

**8AC.2 Measurements of Singlet Oxygen and Organic Triplet Excited States in Aqueous Aerosols in Hong Kong, South China.**

10:00 THEODORA NAH, Yuting Lyu, Yin Hau Lam, Yitao Li, Nadine Borduas-Dedekind, *City University of Hong Kong*

**8AC.3 Model of a Photochemically Induced Iron-Copper Cycling in Viscous Organic Aerosol.** KEVIN KILCHHOFER, Ashmi Mishra,

10:15 Peter A. Alpert, Thomas Berkemeier, Allan K. Bertram, Markus Ammann, *Laboratory of Atmospheric Chemistry, Paul Scherrer Institute*

**8AC.4 Constraining RO<sub>2</sub> Fate in Environmental Chambers: A Systematic, Model-Informed Approach for Laboratory Studies of**

10:30 **SOA Formation.** HANNAH KENAGY, Matthew Goss, Nadia Tahsini, Colette L. Heald, Jesse Kroll, *Massachusetts Institute of Technology*

**8AC.5 Implications of RO<sub>2</sub> Fate for  $\alpha$ -Pinene SOA Volatility and Composition.** ERIK HELSTROM, Lesly Franco Deloya, Hannah

10:45 Kenagy, Manjula Canagaratna, Jesse Kroll, *MIT*

**8AC.6 Acyclic Monoterpenes Do Not Suppress Secondary Organic Aerosol Formed via Photooxidation of Cyclic**

11:00 **Monoterpenes.** SIJIA LIU, Celia Faiola, Sergey Nizkorodov, *University of California, Irvine*

**8AC.7 Reevaluating Isoprene Oxidation Pathways and Their Influence on Secondary Organic Aerosol Formation.** CHUANYANG

11:15 SHEN, Haofei Zhang, *University of California, Riverside*

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8ES SYMPOSIUM: AEROSOL-ECOSYSTEM INTERACTIONS I

F151 – Gabriel Isaacman-VanWertz and Mickey Rogers, chairs

**8ES.1 In Memoriam of Astrid Kiendler-Scharr and Her Contribution to Atmospheric Science and Aerosol-Ecosystem**

9:45 **Interactions.** GEORGIOS GKATZELIS, *IEK-8: Troposphere, Forschungszentrum Jülich GmbH*

**8ES.2 Aerosolized Harmful Algal Blooms: Distinct Toxins and Congeners Quantified in the Atmosphere.** Jia Shi, Nicole Olson,

10:15 Johnna Birbeck, Rebecca Parham, Jin Pan, Nicholas Peraino, Andrew Holen, Isabel Ledsky, Stephen Jacquemin, Linsey Marr, David Schmale, Judy Westrick, ANDREW AULT, *University of Michigan*

**8ES.3 Revealing the Composition and Potential Ecological Impacts of Airborne Bacterial Communities in Dust Plumes of the**

10:30 **Eastern Mediterranean.** YINON RUDICH, Burak Adnan Erkorkmaz, *Weizmann Institute, Rehovot 76100 Israel*

**8ES.4 Exploring Aerosol-Climate Interactions over the Benguela Upwelling Zone: A Multifaceted Analysis of DMS Emissions,**

10:45 **Aerosol Composition, and Climate Implications.** MASHIAT HOSSAIN, Hannah Horowitz, Rebecca Garland, *University of Illinois at Urbana-Champaign*

**8ES.5 Modeling the Dispersal Kernel Across Scales: Local Validation and Regional Insights into Seasonal Patterns and Spatial**

11:00 **Variability.** MANU NIMMALA, Hope Gruszewski, Regina Hanlon, Landon Bilyeu, Tyler Newton, David Schmale, Shane Ross, Hosein Foroutan, *Virginia Tech*

**8ES.6 Atmospheric Reactivity and Aerosol Formation from Observed Versus Modeled BVOCs in a Southeastern US Forest.**

11:15 NAMRATA SHANMUKH PANJI, Deborah F. McGlynn, Laura E. R. Barry, Xi Yang, Manuel Lerdau, Todd Scanlon, Sally Pusede, Gabriel Isaacman-VanWertz, *Virginia Tech*

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8IA INDOOR AEROSOLS III

E142-144 – Linhui Tian and Mehdi Amouei Torkmahalleh, chairs

**8IA.1 Autoxidation of Glycols Used in Inhalable Daily Products: Implications to the Use of Artificial Fogs and E-cigarettes.**

9:45 XINYANG GUO, Ya-Chun Chan, Tania Gautam, Ran Zhao, *University of Alberta*

**8IA.2 Ozonation of Tobacco Smoke Contaminants Embedded in Indoor Deep Reservoirs.** XIAOCHEN TANG, Nicolas Lopez-

10:00 Galvez, Vi Rapp, Penelope Quintana, Hugo Destailats, *Lawrence Berkeley National Laboratory*

**8IA.3 Acetal Formation of Flavoring Agents with Propylene Glycol in E-cigarettes: Impacts on Indoor Partitioning and**

10:15 **Thirdhand Exposure.** SHUANG WU, Erica Kim, Ran Zhao, *University of Alberta*

**8IA.4 Application of Correlation Gas Chromatography and Two-dimensional Volatility Basis Set to Determine the**

10:30 **Physicochemical Properties of E-cigarette Aerosol Constituents.** LINHUI TIAN, Alexa Canchola, Kungpeng Chen, Ying-Hsuan Lin, *University of California, Riverside*

**8IA.5 Oxidative Potential of the Particulate Matter Emitted from Common Household Sources.** P. S. GANESH SUBRAMANIAN,

10:45 Zhuying Dai, Vishal Verma, *University of Illinois Urbana-Champaign*

**8IA.6 The Most Comprehensive Reports of Cooking Oil Emission Characterizations.** MEHDI AMOUEI TORKMAHALLEH, 11:00 Motahareh Naseri, Mostafa Salmanimojaveri, Tomiris Madiyarova, Nadezhda Ushakova, Karina Yessengaziyeva, Gulnur Sultanova, Enoch Adotey, Farzaneh Jafarigol, Zhaniya Askar, Gulnaz Zhemenev, Drina Alessa Holliday, Seyed Morteza Zamir, Dhawal Shah, *University of Illinois at Chicago*

**8IA.7 Indoor and Outdoor Air Quality Impacts of Commercial Kitchen Operations.** JENNA DITTO, Leigh Crilley, Melodie Lao, 11:15 Trevor VandenBoer, Jonathan Abbott, Arthur W. H. Chan, *Washington University in St. Louis*

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8ID SYMPOSIUM: AEROSOL SCIENCE AND INFECTIOUS DISEASE I: INFECTIOUS DISEASE TRANSMISSION IN THE BUILT ENVIRONMENT  
E145/146 – Justin Taylor and Greg Williams, chairs

**8ID.1 Assessing Ventilation and Filtration Performance to Improve Indoor Air Quality in an Older Educational Building.** 9:45 JIANING BAO, Nigel Kaye, Ehsan Mousavi, Christopher Post, Vincent Blouin, Andrew Metcalf, *Clemson University*

**8ID.2 Exploring the Impact of Diffuser Design on Droplet Dispersion in Indoor Spaces.** SUNIL KUMAR, Maria King, *Texas A&M University* 10:00

**8ID.3 Use of a Novel Ferret System Indicates Increased Air Exchange is Not Effective in Reducing Influenza Transmission in Close Contact Exposure Scenarios.** NICOLE C. ROCKEY, Valerie M. Le Sage, Meredith Shephard, Andrea French, Herek L. Clack, Anice Lowen, Aaron Prussin II, Linsey Marr, Seema Lakdawala, *University of Pittsburgh* 10:15

**8ID.4 On the PM<sub>2.5</sub> - Reported Influenza/Influenza-Like Illness Activity Relationship.** T.P. DEFELICE, *Science Systems and Applications, Inc (SSAI)* 10:30

**8ID.5 A Comparison of Viral Aerosols in Indoor Spaces of Higher Education: Flu Season vs. Non-Flu Season.** JING LI, Yifang Zhu, *University of California, Los Angeles* 10:45

**8ID.6 A Device for Real-Time Detection of SARS-CoV-2 Aerosols in Built Environments.** JOSEPH V. PUTHUSSERY, Dishit Ghumra, Kevin McBrearty, Brooklyn Doherty, Benjamin Sumlin, Amirhossein Sarabandi, Anushka Mandal, Nishit Shetty, Woodrow Gardiner, Jordan Magrecki, David Brody, Thomas Esparza, Traci Bricker, Adrianus Boon, Carla M. Yuede, John Cirrito, Rajan K. Chakrabarty, *Washington University in St. Louis* 11:00

**8ID.7 Modeling Respiratory Airborne Particle Transport in a Car Cabin.** BO YANG, John Noonan, Andrew Helgeson, *3M Company* 11:15

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8IM INSTRUMENTATION AND METHODS III: CLASSIFIERS AND DETECTORS  
F150 – Steve Rogak and Julie Pongetti, chairs

**8IM.1 Extending the Spider-MAGIC Sizing Range for the Detection of Nucleation Mode Particles.** STAVROS AMANATIDIS, 9:45 Gregory S. Lewis, Steven Spielman, Susanne Hering, *Aerosol Dynamics Inc.*

**8IM.2 Mapping the Performance of a Versatile Water-based Condensation Particle Counter (vWCPC) with COMSOL Simulation and Experimental Study.** WEIXING HAO, Fan Mei, Susanne Hering, Steven Spielman, Beat Schmid, Jason Tomlinson, Yang Wang, *University of Miami* 10:00

**8IM.3 Field Observations Using the Sulfuric Acid Dimethylamine-Reactive Condensation Particle Counter (SAD-RCPC).** 10:15 Dominic Casalnuovo, Darren Cheng, Christine Troller, COTY JEN, *Carnegie Mellon University*

**8IM.4 A Pulsed Condensation Particle Counter for Community Monitoring.** SUSANNE HERING, Gregory S. Lewis, Steven Spielman, David Pariseau, *Aerosol Dynamics Inc.* 10:30

- 8IM.5 Volume Measurement and Processing of Metal Nanoparticles in the Aerosol Phase.** CYPRIEN JOURDAIN, Jonathan Symonds, Adam M Boies, *University of Cambridge*  
10:45
- 8IM.6 Quantifying the Three Regimes of Bipolar Charging to Improve Accuracy of SMPS Measurements.** ROBERT T. NISHIDA, Tyler J. Johnson, Jason S. Olfert, *University of Alberta*  
11:00
- 8IM.7 Characterizing Reduced Counting Efficiencies of 23 nm Exhaust Emission Condensation Particle Counters Using Atomized Salt Particles.** Helmut Krasa, Martin Kupper, Mario Anton Schriefl, ALEXANDER BERGMANN, *Graz University of Technology*  
11:15

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8SA SOURCE APPORTIONMENT I

E147/148 – Shanhu Lee and Tania Gautam, chairs

- 8SA.1 Source Apportionment, Composition and Oxidative Potential of Particulate Matter in India, China and Europe.** ANDRÉ S. H. PRÉVÔT, Deepika Bhattu, Gaëlle Uzu, Yufang Hao, Peeyush Khare, Tianqu Cui, Lu Qi, Qiyuan Wang, Neeraj Rastogi, Junji Cao, Sachchida N. Tripathi, Jean-Luc Jaffrezo, Jay G. Slowik, Imad El Haddad, Kaspar R. Daellenbach, Himadri Bhowmik, Manousakas Manousos, *Paul Scherrer Institute*  
9:45
- 8SA.2 Local and Regional Contributions to Primary and Secondary PM<sub>2.5</sub> in Korea.** MINSU CHOI, Qi Ying, *Texas A&M University*  
10:00
- 8SA.3 Apportioning Sources of Carbonaceous Aerosols in North Pole, Interior Alaska, with GRG Methods.** SARAVANAN KANAGARATNAM, Kaitlyn McKinney, Anastasia Hewitt, Raghu Betha, Venky Shankar, *Texas Tech University*  
10:15
- 8SA.4 Carbonaceous Aerosols from Indonesian Peat Land Fires: Sources and Characteristics.** RAGHU BETHA, Rajasekhar Balasubramanian, *Texas Tech University*  
10:30
- 8SA.5 Source Apportionment of Wintertime Organic Pollutants in a Canadian Megacity: Insights from Particle and Gas Phase Measurements.** Spiro Jorga, LAURA-HELENA RIVELLINI, Yutong Wang, Jonathan Abbatt, *University of Toronto*  
10:45
- 8SA.6 VCP vs. BVOC Contributions to O<sub>3</sub> Formation during the RECAP Field Campaign in Los Angeles, CA.** Shenglun Wu, Chris Alaimo, Shang Liu, Toshihiro Kuwayama, Peter Green, Thomas Young, MICHAEL KLEEMAN, *University of California, Davis*  
11:00
- 8SA.7 Influence of Intermediate and Semivolatile Organic Compound Emissions from Cooking-Related Sources on Urban Air Quality.** JO MACHESKY, Mia Tran, Minguk Seo, Taekyu Joo, Tori Hass-Mitchell, Mitchell Rogers, Benjamin A. Nault, Joseph Roscioli, Manjula Canagaratna, Jordan Krechmer, Albert Presto, Andrew Lambe, Drew Gentner, *Yale University*  
11:15

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8SC EXHIBITOR AND INSTRUMENT APPLICATION SHOWCASE III

EXHIBIT HALL – Amy Sullivan and Cameron Martin, chairs

- 8SC.1 Advancements in Networkable and Low-Cost Monitoring at AethLabs: an Exposition of a New WiFi-Enabled Portable microAethalometer, a Networkable Multi-Pollutant Aerosol and Gas Monitor, and an MA-series Firmware Upgrade to Add WiFi and Source Apportionment.** JEFF BLAIR, Steven Blair, Tanja Dobovicnik, Ivan Iskra, L. Drew Hill, *Aethlabs*  
9:45
- 8SC.2 A Novel Approach for Determination of Carbonaceous Aerosols by Using Aerosol Magee Scientific Carbonaceous Aerosol Speciation System (CASS) and Software Carbonaceous Aerosol Analysis Tool (CAAT).** KLEMEN KUNSTELJ, Matic Ivančič, Asta Gregorič, Gašper Lavrič, Bálint Alföldy, Irena Ježek, Martin Rigler, *Aerosol d.o.o.*  
10:30

Thursday 11:30 AM - 1:00 PM  
AS&T Editorial Advisory Board Lunch (D136)

Thursday 11:30 AM - 12:15 PM  
Light Take-Away Lunch



Thursday 12:00 PM - 1:00 PM

Committee Meetings VI - Early Career (F152), Long-range planning (D135)

Thursday 12:00 PM - 1:00 PM

PNNL Environmental Molecular Sciences Laboratory Information Session (E145/146)

Thursday 12:00 PM - 1:00 PM

Representation/Equity Affairs and Community Engaged Research Program (Ballroom)

Thursday 1:00 PM - 3:00 PM

Technical Session 9: Poster

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9AC AEROSOL CHEMISTRY VII: POSTERS

EXHIBIT HALL E

- 9AC.1 Photooxidative Fate of Atmospheric Methylated Selenium Compounds.** ERIN BOWEY, Yumeng Cui, Roya Bahreini, Kunpeng Chen, Linhui Tian, Michael Lum, Ying-Hsuan Lin, Don Collins, *University of California, Riverside*  
1:00
- 9AC.2 Oxidative Potential and ROS Speciation in Organoselenium Derived Secondary Organic Aerosols.** MICHAEL LUM, Erin Bowey, Linhui Tian, Kunpeng Chen, Ningjin Xu, Ying Zhou, Alexa Canchola, Wonsik Woo, Don Collins, Roya Bahreini, Ying-Hsuan Lin, *University of California, Riverside*  
1:00
- 9AC.3 Secondary Organic Aerosol Formation from OH-Initiated Oxidation of o-cresol.** Cecilie Carstens, David Bell, FÉLIX SARI DORÉ, Jens Top, Clément Dubois, Yanjun Zhang, Sebastien Perrier, Imad El Haddad, Matthieu Riva, *CNRS-IRCELYON*  
1:00
- 9AC.4 Gas-Phase Oxidation Products and SOA Yields from  $\alpha$ -Pinene Oxidation under a Range of RO<sub>2</sub> Reaction Conditions.** LESLY FRANCO DELOYA, Erik Helstrom, Hannah Kenagy, Yaowei Li, Frank Keutsch, Jesse Kroll, *MIT*  
1:00
- 9AC.5 Multi-Generational Autoxidation Chemistry in the  $\alpha$ -Pinene+Oh System and Dual Roles for NO in SOA Formation.** MASAYUKI TAKEUCHI, Jean Rivera-Rios, Nga Lee Ng, Ivan Piletic, Emma D'Ambro, Joel A. Thornton, Benjamin Murphy, Havalal Pye, *Georgia Institute of Technology*  
1:00
- 9AC.6 Impact of Acidic Aerosol on Deceleration of SOA Formation from the Photooxidation of Phenol or Benzene.** Jiwon Choi, MYOSEON JANG, *University of Florida*  
1:00
- 9AC.8 Revealing the Chemical Processes Governing the Evolution of Particle Oxidation Products from Naphthalene OH Initiated Oxidation.** FÉLIX SARI DORÉ, Yanjun Zhang, Cecilie Carstens, Jens Top, Clément Dubois, Sebastien Perrier, Imad El Haddad, David Bell, Matthieu Riva, *CNRS-IRCELYON*  
1:00
- 9AC.9 Products of Alkoxy Radical Reactions in the Atmospheric Aqueous Phase: Impact of Chemical Structure on Product Distributions.** LEXY LEMAR, Victoria Barber, Yaowei Li, Frank Keutsch, Jesse Kroll, *MIT*  
1:00
- 9AC.10 Evolution of Secondary Organic Aerosol Composition during Photochemical Ageing.** OLGA GARMASH, Ben H. Lee, Maria Zawadowicz, John Shilling, Joel A. Thornton, *University of Washington*  
1:00
- 9AC.11 Secondary Organic Aerosol Formation from Glycol Ethers.** REINA BUENCONSEJO, Haroula D. Baliaka, Paul Wennberg, John Seinfeld, *California Institute of Technology*  
1:00
- 9AC.12 The Role of Particle-Phase Criegee Intermediates in the Ozonolysis of Organic Aerosol.** RYAN REYNOLDS, Kevin R. Wilson, *Lawrence Berkeley National Laboratory*  
1:00
- 9AC.13 SOA Formation from the Ozonolysis of Various Sesquiterpenes and the Photooxidation of Their First Generation Products.** CHRISTINA N. VASILAKOPOULOU, Agata Kołodziejczyk, Kalliopi Florou, Christos Kaltsonoudis, Angeliki Matrali, Damianos Pavlidis, Spyros N. Pandis, *University of Patras, Greece*  
1:00

- 9AC.14 Aqueous Phase Photochemical Transformations of Phenolic SOA: Effects of Organic Concentration and Ionic Strength on SOA Chemistry.** CHRISTOPHER NIEDEK, Wenqing Jiang, Yuejun Zhou, Lan Ma, Cort Anastasio, Qi Zhang, *University of California, Davis*  
1:00
- 9AC.16 Formation Kinetics of Isoprene Epoxydiol-Derived Secondary Organic Aerosol Are Altered Near the Sulfate/Bisulfate pKa.** N. CAZIMIR ARMSTRONG, Madeline Cooke, Yuzhi Chen, Molly Frauenheim, Zhenfa Zhang, Avram Gold, Andrew Ault, Jason Surratt, *University of North Carolina at Chapel Hill*  
1:00
- 9AC.17 Amore 2.0: A New and Improved Algorithm for the Reduction of Atmospheric Oxidation Mechanisms.** FORWOOD WISER, V. Faye McNeill, Siddhartha Sen, Daniel Westervelt, Benjamin Yang, Arlene Fiore, Daven Henze, Arijit Chakraborty, *Columbia University*  
1:00
- 9AC.18 Classification of Novel Chemical Markers in Secondary Organic Aerosol Formation through Incorporation of Laboratory and Ambient "Unknown" Species into an Open-Access Mass Spectral Database (UCB-GLOBES).** LINDSAY YEE, Emily Franklin, Robert Weber, Taekyu Joo, Masayuki Takeuchi, Gamze Eris, Weiqi Xu, Nga Lee Ng, Yuzhi Chen, John Shilling, Allen Goldstein, *University of California, Berkeley*  
1:00
- 9AC.19 Comparison of Common Vapor Pressure Estimation Methods and the Effect of Viscosity on SOA Formation through Modeling of Alkene OH/NO<sub>x</sub> Systems.** EMMALINE LONGNECKER, Julia Bakker-Arkema, Zhe Peng, Paul Ziemann, *University of Colorado Boulder*  
1:00
- 9AC.20 Modeling the Influence of Carbon Branching Structure on SOA Formation of Alkanes.** AZAD MADHU, Myoseon Jang, *University of Florida*  
1:00
- 9AC.21 Exploring the Role of Hydroperoxyl Radical in the Multiphase Organic Aerosol Aging.** WEN ZHANG, Haofei Zhang, *University of California, Riverside*  
1:00
- 9AC.22 Conversion of Organic Sulfur from Hydroxymethanesulfonate (HMS) to Inorganic Sulfur Species upon Heterogeneous OH Oxidation.** Donger Lai, Yee Ka Wong, Rongshuang Xu, Sinan Xing, Sze In Madeleine Ng, Lin Kong, Jian Zhen Yu, Dan Dan Huang, MAN NIN CHAN, *The Chinese University of Hong Kong*  
1:00
- 9AC.24 Predictions of Secondary Organic Aerosol Formation from Consumer Products.** HUAWEI LI, Qi Li, David R. Cocker III, *University of California, Riverside*  
1:00
- 9AC.25 Organic Nitrates Regulate the Production of Urban Secondary Organic Aerosol and Ozone.** JUNFENG WANG, Jianhui Ye, Hong Liao, Jie Zhang, Ke Li, Xinlei Ge, Daniel Jacob, *Nanjing University of Information Science and Technology*  
1:00
- 9AC.26 Scrambling of Molecular Speciation of Gaseous Oxidized Mercury via Surface Reactions on Atmospheric Aerosols.** ALEXEI KHALIZOV, Na Mao, *New Jersey Institute of Technology*  
1:00
- 9AC.27 Seasonal Variation of Fine Particulate Matter-Bound Toxic Metals in a Typical South Asian Industrial City.** MUHAMMAD IBRAHIM, Afifa Aslam, Abid Mahmood, *Government College University Faisalabad, Pakistan*  
1:00
- 9AC.28 Determination of Intermediates of the UO<sub>2</sub>F<sub>2</sub> Aerosol Formation under Different Water Conditions.** CHRISTIAN MARK SALVADOR, Jason Richards, Shannon Mahurin, Meng-Dawn Cheng, *Oak Ridge National Laboratory*  
1:00
- 9AC.30 Investigating the Effect of Temperature Cycles on Gas-Particle Phase Transitioning in Dark Ozonolysis Systems.** DANIEL GONZALEZ, Chen Le, Ryan W. Drover, Huawei Li, Yanyu Zhang, Thomas Eckel, David R. Cocker III, *University of California, Riverside*  
1:00
- 9AC.31 Quantifying the Impact of Agricultural Ammonia Increases on Particulate Matter Burden over the Midwestern United States.** TOAN VO, Amy Christiansen, *University of Missouri - Kansas City*  
1:00

- 9AC.32 Comparisons of Aqueous SOA Products and Physical Properties in Methylglyoxal/Ammonium-Sulfate Solutions under Dark and Irradiated Conditions.** ERIN O'LEARY, Maia Merriman, Katherine Pierre-Louis, Bruno Loyola San Martin, Joseph Woo, *Lafayette College*  
1:00
- 9AC.33 Investigating the Significance of Water Associated With Organic Matter Towards Atmospheric Aerosol Liquid Water Content in Florida.** MEGAN NEUMANN, Marwa El-Sayed, Shannon Capps, *Embry-Riddle Aeronautical University*  
1:00
- 9AC.34 Real-Time Aerosol Mass Spectral Characterization of Aerosols Generated by an Electronic Nicotine Delivery System (ENDS) and Aerosolization of Surrogate E-Liquids as a Function of Humectant Composition and Heating Power.** Yue Zhang, JIN YAN, Nicolas Aliaga Buchenau, Manjula Canagaratna, Caz Nichols, Michelle McCombs, Timothy Fennell, Elena Mishina, Samantha Reilly, Marcella Ferlito, Kamau Peters, Jonathan Thornburg, Jason Surratt, *University of North Carolina at Chapel Hill*  
1:00
- 9AC.35 Isoprene Peroxy Chemistry Operates Competitively in Areas of East China.** XUAN ZHANG, *National Center for Atmospheric Research*  
1:00
- 9AC.36 Aerosol Organic and Inorganic Composition on Sunny and Cloudy Days during EPCAPE.** SANGHEE HAN, Abigail Williams, Veronica Berta, Jeremy Dedrick, Christian Pelayo, Nattamon (Jeep) Maneenoi, Lynn Russell, *University of California, San Diego*  
1:00
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#### 9AE AEROSOL EXPOSURE I: POSTERS

##### EXHIBIT HALL E

- 9AE.1 Environmentally Persistent Free Radical Formation and Correlation with Ambient Pollutants in Fairbanks, Alaska during the ALPACA Campaign.** KASEY EDWARDS, Sukriti Kapur, Ting Fang, Meeta Cesler-Maloney, Yuhan Yang, Ellis Robinson, Peter F. DeCarlo, Rodney J. Weber, William Simpson, Manabu Shiraiwa, *University of California, Irvine*  
1:00
- 9AE.2 Uptake Rates of PDMS-Based Passive Sampling Materials for Aerosols with Varying Particles Sizes.** DONG GAO, Elizabeth Lin, Jonathan Martin, Krystal Godri Pollitt, *Yale University*  
1:00
- 9AE.3 Understanding Heterogeneity and Sources of Black Carbon and Volatile Organic Compounds in Residential Neighborhoods of New York State Capital Region and Hudson Valley Region.** SANCHITA PAUL, Marco Eugene, Farid Barak, Md. Aynul Bari, *University at Albany, SUNY*  
1:00
- 9AE.4 Secondhand Electronic Cigarette Aerosol in Vehicles Impacts Indoor Air Quality.** Eric Soule, SINAN SOUSAN, Jack Pender, Luke Thomas, Emily Gold, Sarah Fresquez, Ronald Mooring, Vivien Coombs, Anish Gogineni, Alex Tiet, *Department of Public Health, East Carolina University*  
1:00
- 9AE.5 Impacts on Urban PM<sub>2.5</sub> and VOCs during a Wildfire Episode.** ZHONG-MIN WANG, Ping Wang, Jeff Wagner, Kazukiyo Kumagai, *California Department of Public Health*  
1:00
- 9AE.6 Generation and Characterization of Reference Ultrafine Soot Particles to Carry Out Toxicological Assessments at the Air-Liquid Interface System.** ANUSMITA DAS, Jana Pantzke, Arūnas Meščeriakovas, Nadine Gawlitta, Seongho Jeong, Natalia Ivleva, Mathilde Delaval, Simone Schmitz-Spanke, Sebastiano Di Bucchianico, Jürgen Schnelle-Kreis, Martin Sklorz, Ralf Zimmermann, *Helmholtz Zentrum München and University of Rostock*  
1:00
- 9AE.7 Intake Fraction Associated with Indoor Particle Sources: Effects of Source Location and Ventilation Conditions.** Donghyun Rim, YESEUL EOM, *Pennsylvania State University*  
1:00
- 9AE.8 Optimizing Aerosol Distribution in Allergen Exposure Chambers: A Comprehensive CFD Study.** FATEMEH RAZAVI, Laura Haya, Suzanne Kelly, Rachel Friedrich, Alissa Belanger, Jimmy Yang, William Yang, Edgar Matida, *Carleton University*  
1:00
- 9AE.9 A Deep Learning-based PM<sub>2.5</sub> Forecasting Model for Pittsburgh Using GEOS-CF Based Atmospheric Composition Data.** ABHISHEK ANAND, Albert Presto, Amir Barati Farimani, *Carnegie Mellon University*  
1:00

- 9AE.10 Spatial and Temporal Variations of Ultrafine Particles in a Residential Area Near an Airport.** CHEOL H. JEONG, Junshi Xu, Weaam Jaafar, Emily Farrar, Danny Anwar, Isaac Nielsen, Matthew Tamura, Marianne Hatzopoulou, Greg J. Evans, SOCAAR, *University of Toronto*  
1:00
- 9AE.11 Design of a Coupled Flame and Cell Exposure System for Study of Combustion Particle Toxicity.** SHUBHAM SUNIL SHARMA, Dhruv Mitroo, Shu-Wen You, Joseph V. Puthussery, Rajan K. Chakrabarty, Benjamin Kumfer, *Washington University in St. Louis*  
1:00
- 9AE.12 Student Assessment of PM<sub>2.5</sub> Concentration at Ecu Transit Bus Stops Using a Low-Cost Aerosol Monitor.** WILL MURRAY, Jo Anne Balanay, Sinan Sousan, *East Carolina University*  
1:00
- 9AE.13 Personal Exposure Using Low Cost PM Sensors in Disproportionately Impacted Denver Communities.** MARYAM ANIYA KHALILI, Sumit Sankhyan, Nicholas Clements, Sophie Dolores Castillo, Allison Heckman, Dulce Gonzalezbeltran, Valentina Serrano-salomon, Omar Hammad, Esther Sullivan, Shivakant Mishra, Shelly L. Miller, *University of Colorado Boulder*  
1:00
- 9AE.14 Coupling of the Weather Research and Forecasting Model with AERMOD for Wildfire-induced Pollution Analysis.** YUCHENG HE, Sanika Nishandar, Jiachen Zhang, Marko Princevac, *University of California, Riverside*  
1:00
- 9AE.15 A Data Fusion Model for Rapid Wildfire Smoke PM<sub>2.5</sub> Exposure Estimates Using Routinely-available Data.** SEAN RAFFUSE, Susan O'Neill, Rebecca Schmidt, *University of California, Davis*  
1:00
- 9AE.16 Characterization of Metals in Communities at the Fenceline of an Industrial Corridor in Louisiana Using Size-Resolved Filter Measurements and Mobile Monitoring.** AMIRA YASSINE, Mina Tehrani, Shivang Agarwal, Edward Fortner, Ellis Robinson, Benjamin Werden, Megan Claflin, Ana Rule, Peter F. DeCarlo, *Johns Hopkins University*  
1:00
- 9AE.17 A Mesh-Hopper System for Delivering Microplastic Fibers to Cells at the Air-Liquid Interface for Toxicity Assessment.** Sripriya Nannu Shankar, Amber O'Connor, AMIN SHIRKHANI, Anna Lewis, Alex Theodore, Lee Ferguson, Tara Sabo-Attwood, Chang-Yu Wu, *University of Florida*  
1:00
- 9AE.18 Assessing Ambient Air Quality Response to Cookstove Intervention.** KY TANNER, John Volckens, *Colorado State University*  
1:00
- 9AE.19 Analysis of PM<sub>2.5</sub> Inorganic and Organic Constituents to Resolve Contributing Sources in Seoul, South Korea and Beijing, China and Their Possible Associations With Cytokine IL-8.** JIEUN PARK, Kyoung-Hee Lee, Hyewon Kim, Jisu Woo, Jongbae Heo, Kwon Ho Jeon, Chang-Hoon Lee, Chul-Gyu Yoo, Philip K. Hopke, Petros Koutrakis, Seung-Muk Yi, *Harvard T.H. Chan School of Public Health*  
1:00
- 9AE.20 Analyzing Particle Size Distribution of Over-the-Counter (OTC) Topical Spray Drug Products to Inform Inhalation Exposure Risk Assessments.** LUCY NANDY, Xiaofei Liu, Robert Bahde, *U.S. Food and Drug Administration*  
1:00
- 9AE.21 Fast Prediction of Comprehensive Human Infection Risk Using Computational Fluid Dynamics and Machine Learning.** HYEONJUN LEE, Donghyun Rim, *Pennsylvania State University*  
1:00

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9CC AEROSOLS, CLOUDS AND CLIMATE IV: POSTERS

EXHIBIT HALL E

- 9CC.2 Physical and Chemical Properties of Aerosol Particles in the Rural Area Near Houston, Texas.** JING LI, Jiaoshi Zhang, Xianda Gong, Steven Spielman, Chongai Kuang, Ashish Singh, Maria Zawadowicz, Lu Xu, Jian Wang, *Washington University in St. Louis*  
1:00
- 9CC.3 Investigating the Vertical Variability of Aerosol Composition, Morphology and Mixing State over Crested Butte Mountain: Impacts on Ice Nucleation.** NURUN NAHAR LATA, Jessie Creamean, Thomas C. J. Hill, Russell Perkins, Sonia Kreidenweis, Zezhen Cheng, Darielle Dexheimer, Alexander Laskin, Paul DeMott, Daniel Feldman, Swarup China, *Pacific Northwest National Lab*  
1:00

- 9CC.4 New Insights into Aerosol Roles in the Earth System with UAS Observational Capability.** FAN MEI, Hailong Wang, Zihua Zhu, Damao Zhang, Qi Zhang, Jerome Fast, William Gustafson, Xiangyu Li, Beat Schmid, Christopher Niedek, Jason Tomlinson, Connor Flynn, *Pacific Northwest National Laboratory*  
1:00
- 9CC.5 Black Carbon Aerosols and Aerosol-Cloud Interactions over the Northeastern Pacific Ocean.** DONGLI WANG, Bradley Ries, Minghao Han, Alexander B. MacDonald, Don Collins, Roya Bahreini, Patrick Chuang, Lisa Welp-Smith, Mikael Witte, Andrew Metcalf, *Clemson University*  
1:00
- 9CC.6 Characterization of Submicron Aerosol Composition and Hygroscopicity in Houston, TX during TRacking Aerosol Convection Interactions Experiment (TRACER) Campaign.** MARIA ZAWADOWICZ, Chongai Kuang, Ashish Singh, Janek Uin, Tamanna Subba, Dié Wang, Rebecca Trojanowski, Arthur J. Sedlacek, Olga Mayol-Bracero, Michael Jensen, *Brookhaven National Laboratory*  
1:00
- 9CC.7 Study Design and First Results of the 2023 Soot-on-Snow Campaign.** HANS MOOSMÜLLER, Jonas Svensson, Krista Luoma, Delun Li, Outi Meinander, Anna Kontu, Olli Sippula, Oona Norvapalo, Janne Jänis, Pavla Dagsson-Waldhauserová, Aki Virkkula, *Desert Research Institute*  
1:00
- 9CC.8 The Results of SAIL-Net: Investigating Spatial Variability of Aerosol and Cloud Nuclei in Mountainous Terrain.** LEAH GIBSON, Ethan Emerson, Nicholas Good, Anna Hodshire, Ezra Levin, Gavin McMeeking, Kate Patterson, Bryan Rainwater, Tom Ramin, Benjamin Swanson, *Handix Scientific*  
1:00
- 9CC.9 The Analysis of Four Factors for Hygroscopicity Parameterization - Surface Activity, Solubility, LLPS and O/C.** NAHIN FERDOUSI, Kanishk Gohil, Kotiba A. Malek, Dewansh Rastogi, Kiran R. Pitta, Qishen Huang, Miriam Freedman, Akua Asa-Awuku, *University of Maryland, College Park*  
1:00
- 9CC.10 Impact of Aerosol on Precipitation in Stratocumulus Clouds: Insights from Long-Term Measurements in the Eastern North Atlantic.** MAIQI ZHANG, Shengqian Zhou, Virendra Ghate, Maria Cadeddu, Christine Chiu, Jian Wang, *Washington University in St. Louis*  
1:00
- 9CC.11 Investigation of Secondary Aerosol Formation Potential of Air off the Coast of Southern California.** MINGHAO HAN, Bradley Ries, Alexander B. MacDonald, Roya Bahreini, Don Collins, *University of California Riverside*  
1:00
- 9CC.12 The Application of a Generalized Hygroscopicity Parameterization for Climate Modeling.** Kanishk Gohil, Andrew Gettelman, AKUA ASA-AWUKU, *University of Maryland*  
1:00
- 9CC.13 Chemical Characterization of Water-Soluble Organic Gases from Combustion of African Biomass in Cloud Water Mimics as Precursors to Secondary Organic Aerosol.** CADE CHRISTENSEN, Vaios Moschos, Megan Mouton, MarkieSha James, Marc Fiddler, Solomon Bililign, Barbara Turpin, Jason Surratt, *University of North Carolina at Chapel Hill*  
1:00
- 9CC.14 Seasonal Differences in New Particle Formation Events in Crested Butte, Colorado during the SAIL Campaign.** ANNA KAPP, James Smith, Celia Faiola, Maria Flores, *University of California, Irvine*  
1:00
- 9CC.15 Comparison of Atomizers Intended for Marine Cloud Brightening.** MARYAM SHAHRASEBI, Steven Rogak, *University of British Columbia*  
1:00
- 9CC.16 Liquid-Liquid Phase Separation (LLPS) Can Drive Aerosol Droplet Growth in Supersaturated Regimes.** Kotiba A. Malek, Kanishk Gohil, Esther Olonimoyo, Nahin Ferdousi, Qishen Huang, Kiran R. Pitta, Lucy Nandy, Katelyn Voss, Tim Raymond, Dabrina Dutcher, Miriam Freedman, AKUA ASA-AWUKU, *University of Maryland, College Park*  
1:00
- 9CC.17 Absorption Enhancement of Atmospheric Black Carbon Driven by Coating Morphology.** CYPRIEN JOURDAIN, Yu Wang, David Neubauer, Jonathan Symonds, Ulrike Lohmann, Adam M Boies, *University of Cambridge*  
1:00
- 9CC.18 Ice Nucleation By Smectites: The Role of the Clay Mineral Edges.** ANAND KUMAR, Kristian Klumpp, Chen Barak, Giora Rytwo, Michael Plötze, Thomas Peter, Claudia Marcolli, *Eidgenössische Technische Hochschule Zürich (ETHZ)*  
1:00

**9CC.19 The Emissions of Intermediate-volatility and Semi-volatile Organic Compounds from Chinese Diesel Vehicles under Different Engine Conditions.** XIAO ZHANG, *Tsinghua University*  
1:00

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9CM CONTROL AND MITIGATION TECHNOLOGY I: POSTERS

EXHIBIT HALL E

**9CM.1 Model-guided Control of Nanofiber Orientation in Nanomanufacturing of Next-gen Air Filters.** KEVIN K. CROWN, Yury Salkovskiy, Yuris Dzenis, *National Strategic Research Institute*  
1:00

**9CM.2 Modeling of a Novel Large-scale Electrohydrodynamic Vortex Flow Induced by Variation in Current Density for Drag Reduction.** ERIC MONSU LEE, *Northern Illinois University*  
1:00

**9CM.3 HEPA Filtration in Smart Cabin Air Filter Systems for Vehicles.** Jérôme Migaud, CHRISTOPH KRAUTNER, Thomas Siegele, Martin Lehmann, *MANN+HUMMEL GmbH*  
1:00

**9CM.4 Characterizing the Long-Term Performance of Four Corsi-Rosenthal Boxes.** GRAHAM JAEGER, Theresa Pistochini, Richard Corsi, Christopher Cappa, *University of California, Davis*  
1:00

**9CM.6 AQ Guard Smart System & MyAtmosphere a Long-term Stable Sensor Network.** VOLKER ZIEGLER, Henrik Hof, *Palas GmbH, Karlsruhe, Germany*  
1:00

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9ES SYMPOSIUM: AEROSOL-ECOSYSTEM INTERACTIONS II: POSTERS

EXHIBIT HALL E

**9ES.1 Dynamic Aerosol Characteristics Surrounding Storms Observed in Northern Colorado During the BACS-I and BACS-II Field Campaigns.** Russell Perkins, Ben Ascher, Tyler Barbero, Noelle Bryan, Charles Davis, Paul DeMott, Jacob Escobedo, Nick Falk, Janeshta Fernando, Teresa Feldman, Sean Freeman, BRIAN HEFFERNAN, Thomas C. J. Hill, Sonia Kreidenweis, Gabrielle Leung, Chamari Mampage, Allie Mazurek, Claudia Mignani, Daniel Veloso-Aguila, Christine Neumaier, Marina Nieto-Caballero, Lexi Sherman, Susan van den Heever, Leah Grant, Elizabeth Stone, *Colorado State University*  
1:00

**9ES.2 Airborne Algae: Emerging Atmospheric and Health Implications.** MICKEY ROGERS, Robert Stanley, *Pacific Northwest National Laboratory*  
1:00

**9ES.3 Atmospheric Process and Enrichment of Microcystin-LR in Lake Spray Aerosol during Harmful Algae Blooms.** BAHARAN EMAM, Myoseon Jang, *University of Florida*  
1:00

**9ES.4 Deployment of the DOE 3rd ARM Mobile Facility (AMF3) to the Southeastern United States: A Vision for Integrated Model-Observing System Design for Targeting Land-Aerosol-Cloud Interactions.** CHONGAI KUANG, Shawn Serbin, Scott Giangrande, *Brookhaven National Laboratory*  
1:00

**9ES.5 Observationally Constrained Modeling of the Reactive Uptake of IEPOX under Elevated RH and Varying Acidity of Seed Aerosol Conditions.** JIE ZHANG, ManishKumar Shrivastava, Alla Zelenyuk, Rahul Zaveri, Jason Surratt, Matthieu Riva, David Bell, Marianne Glasius, *Pacific Northwest National Laboratory*  
1:00

**9ES.6 Influence of Ecosystem Processes on Aerosol Organic Hygroscopicity.** MARIA FLORES, Celia Faiola, *University of California, Irvine*  
1:00

**9ES.7 Characterizing Local and Regional Contributions to the Aerobiome of the University of California, Irvine Campus.** JASMINE OSEI-ENIN, Celia Faiola, *University of California, Irvine*  
1:00

**9ES.8 Properties of Biogenic Ice Nucleating Particles.** SARAH D. BROOKS, Daniel Thornton, Brianna H. Matthews, Alyssa Alsante, Roya Safa, Phoebe Scharle, *Texas A&M University*  
1:00

**9ES.9 Bioaerosol Analysis Using Photothermal Infrared Spectroscopy: Case Study with Aerosols from Cyanobacterial Harmful Algal Blooms.** CARLIE POWOROZNEK, Jia Shi, Rebecca Parham, Katherine Kolozsvari, Yao Xiao, Nicole Olson, Johnna Birbeck, Stephen Jacquemin, Judy Westrick, Andrew Ault, *University of Michigan*  
1:00

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9HS HISTORY OF AEROSOL SCIENCE I: POSTERS

EXHIBIT HALL E

**9HS.1 Evolution of Filters for Aerosol Chemical and Physical Characterization.** JUDITH CHOW, Xiaoliang Wang, John Watson,  
1:00 *Desert Research Institute*

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9IA INDOOR AEROSOLS IV: POSTERS

EXHIBIT HALL E

**9IA.1 In-situ Assessment of Particle Air Cleaning.** Rafsan Nahian, JEFFREY SIEGEL, *University of Toronto*  
1:00

**9IA.2 Improved Biomass Stoves and Improved Cooking Practices Contribute to Lowering PM<sub>2.5</sub> Exposure in Addis Ababa, Ethiopia.** Margaret Hall, Sophie McManus, Amadou Toure, Audrey Parrott, Ella Hein, Alek Rabago, Nora Caballero, Austin Heuer, Seblua Abebe, Tsegaye Nega, DEBORAH GROSS, *Carleton College*  
1:00

**9IA.3 Moisture Influences Gene Expression and Allergens in Fungal Communities in House and ISS Dust.** Ashleigh Bope, Nicholas Nastasi, Emma C. Hall, Bridget Hegarty, Rachel I. Adams, Allen Goldstein, Pawel K. Misztal, Karen C. Dannemiller, SARAH R. HAINES, *University of Toronto*  
1:00

**9IA.6 Characterization and Modeling of Indoor Air Pollution in Urban Indian Built Environments.** ALOK KUMAR THAKUR, Sameer Patel, *Indian Institute of Technology Gandhinagar*  
1:00

**9IA.7 Performance Evaluation of Portable Indoor Air Cleaners: Particles and Organic Compounds Removal and Possible Byproduct Generation.** DONG GAO, Elizabeth Lin, Sheng Liu, Krystal Godri Pollitt, *Yale University*  
1:00

**9IA.8 Modeling SOA Formation via Multiphase Reactions of Hydrocarbons under Indoor Light Environments.** SPENCER BLAU, Myoseon Jang, *University of Florida*  
1:00

**9IA.9 Physiochemical Properties of Thirdhand Smoke Generated from Electronic Nicotine Delivery Systems.** KAPIAMBA KASHALA FABRICE, Gabriel Georgakopoulos, Weixing Hao, Yue-Wern Huang, Yang Wang, *University of Miami*  
1:00

**9IA.10 Detection and Protection From Extreme Aerosol "Spikes" Generated during Everyday Cooking Activities.** DEVABHAKTUNI SRIKRISHNA, Sonam Devabhaktuni, Sathyaraj Devabhaktuni, *Patient Knowhow, Inc.*  
1:00

**9IA.11 Impacts of Semivolatile Organic Carbons and Relative Humidity on the Deposition Rate of Ozone to Permeable Indoor Surfaces.** JILLIAN DOWNEY, Jonathan Abbatt, *University of Toronto*  
1:00

**9IA.12 Analysis of Significant Weather Events (Inversion, Dust, Wildfire Smoke) Impact on Indoor and Outdoor PM<sub>2.5</sub> Levels Measured Using a Network of Low-Cost Air Quality Sensors.** TRISTALEE MANGIN, Zachary Palmer, Darrah Sleeth, Kerry Kelly, *University of Utah*  
1:00

**9IA.13 Indoor Particle Characterization in Forty Commercial Building Offices in Singapore.** ZURAIMI SULTAN, Jiayu Li, Jovan Pantelic, Stefano Schiavon, *UC Berkeley*  
1:00

**9IA.14 Understanding the Fate and Composition of Indoor Particle Mix.** CHETHANI ATHUKORALA, Suresh Dhaniyala, *Clarkson University*  
1:00



- 9IA.15 Particle-Phase Ionic Per- and Polyfluoroalkyl Substance (PFAS) Profiles, Concentrations, and Artifacts in Indoor Air: Findings from the Indoor PFAS Assessment (IPA) Campaign.** NAOMI CHANG, Clara Eichler, Daniel Amparo, Jiaqi Zhou, Elaine Cohen Hubal, Jason Surratt, Glenn Morrison, Barbara Turpin, *UNC-Chapel Hill*  
1:00
- 9IA.16 Assessing Microbial and Chemical Exposures in Beaumont, Texas.** DAVID JARMA, Juan Pedro Maestre, Pawel K. Misztal, Kerry Kinney, *University of Texas at Austin*  
1:00
- 9IA.17 Real-Time Evaluation of VOC Emission Factors and Intake Fractions for Scented Wax Products Using PTR-TOF-MS.** JIANGHUI LIU, Jinglin Jiang, Satya Patra, Xiaosu Ding, Jordan Cross, Brandon E. Boor, Nusrat Jung, *Purdue University*  
1:00
- 9IA.18 Impact of Wildfire Smoke Age and Filter Smoke Exposure on Air Cleaner Effectiveness.** RYAN BIXLER, Brett Stinson, Baorong Luo, Elliott Gall, *Portland State University*  
1:00
- 9IA.19 Evaluation of the Effectiveness of Pre-filter Systems in Reducing PM2.5 Concentrations in Indoor Environments.** SU-GWANG JEONG, *Soongsil University*  
1:00
- 9IA.21 Secondhand Exposure to Simulated Cannabis Vaping Aerosols.** XIAOCHEN TANG, Vi Rapp, Marion Russell, Hugo Destailats, *Lawrence Berkeley National Laboratory*  
1:00
- 9IA.22 Airborne Per- and Polyfluoroalkyl Substances (PFAS) in North Carolina Firehouses.** GABRIELLE WEST, Clara Eichler, Naomi Chang, Rebecca Turner, Barbara Turpin, Jason Surratt, *University of North Carolina at Chapel Hill*  
1:00
- 9IA.23 Atmospheric Multiphase Oxidation of Bisphenol A and Its Alternatives: Transformations and Kinetics in Air.** JIE YU, Yufeng Gong, Hui Peng, Jonathan Abbatt, John Liggi, *University of Toronto*  
1:00
- 9IA.24 Particle Emission and Metal Composition Characterizations for Fused Filament Fabrication 3D Printers Using Emerging Materials.** QIAN ZHANG, Rodney J. Weber, Todd Luxton, Derek Peloquin, Eric Baumann, Marilyn Black, *UL Research Institutes*  
1:00
- 9IA.25 Chemical Properties and Toxicity of Cooking Aerosols (Meat and Fish).** YEONJU SIM, Minhan Park, Kihong Park, *Gwangju Institute of Science and Technology*  
1:00
- 9IA.26 Effects of E-Cigarette Liquid Ratios on the Gravimetric Filter Correction Factors and Real-Time Measurements.** Austin Close, Jane Blackerby, Heather Tunnell, Jack Pender, Eric Soule, SINAN SOUSAN, *East Carolina University*  
1:00
- 9IA.27 Infiltration of Outdoor PM2.5 Pollution into Homes with Evaporative Coolers in Utah County.** DARRELL SONNTAG, Han Jung, Tyler Peterson, Taylor Christensen, Selah Willis, Pablo Harline, Paula Chanthakhoun, Alisandra Olivares, Jim Johnston, *Brigham Young University*  
1:00
- 9IA.28 Significant Differences in Ultrafine Particle Concentrations and Size Distributions between Cannabis Cultivation and Processing Facilities.** DAVI DE FERREYRO MONTICELLI, Cynthia Pham, Sahil Bhandari, Angela Eykelbosh, Sarah Henderson, Amanda Giang, Naomi Zimmerman, *University of British Columbia*  
1:00
- 9IA.29 Spatial Distributions of Skin Care Products (Fragrances or Lotions) in a Ventilated Room.** YOUNGBO WON, Pascale Lakey, Nora Zannoni, Jonathan Williams, Manabu Shiraiwa, Donghyun Rim, *Pennsylvania State University*  
1:00

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9ID SYMPOSIUM: AEROSOL SCIENCE AND INFECTIOUS DISEASE II: POSTERS

EXHIBIT HALL E

- 9ID.1 A Meta-Analysis of Air Change Rate and SARS-CoV-2 Exposure in Residences and Healthcare Facilities.** YUETONG ZHANG, Sripriya Nannu Shankar, William Vass, Z. Hugh Fan, John Lednický, Duzgun Agdas, Chang-Yu Wu, *University of Florida*  
1:00

- 9ID.2 A Computational Model of Phonation-Induced Aerosolization.** COREY LYNN MURPHEY, Allison Hilger, Elizabeth Bradley, 1:00 *University of Colorado - Boulder*
- 9ID.3 Overview of the Size of Respiratory Particles Containing Infectious Pathogens.** TIMOTHY SIPKENS, Rym Mehri, Andrew Oldershaw, Gregory Smallwood, *National Research Council Canada* 1:00
- 9ID.4 Aerodynamic Size Distribution and Rates of SARS-CoV-2 Aerosol Shedding: Omicron BA.4 and BA.5.** KRISTEN K. COLEMAN, Petri Kalliomäki, Jianyu Lai, Sheldon Tai, Jennifer German, Filbert Hong, Barbara J. Albert, Yi Esparza, Aditya Kiran Srikakulapu, Maria Schanz, Isabel Sierra Maldonado, Molly Oertel, Naja Fadul, Arantzazu Eiguren-Fernandez, Gregory S. Lewis, Kathleen McPhaul, Donald K. Milton, *University of Maryland School of Public Health* 1:00
- 9ID.5 Effects of Portable Air Filtration Units on Submicrometer- and Micrometer-Sized Aerosol Particle Deposition and Concentration in a Natural Ventilated Skilled Nursing Facility.** LINHAO LI, Zachary Pope, Youngjoo Son, Stephanie Eilts, Christopher J. Hogan, Meng Kong, *Well Living Lab* 1:00
- 9ID.6 Mysteriously Rapid Rise in Legionnaires' Disease Incidence Traced to Declining Sulfur Dioxide.** FANGQUN YU, Arshad Nair, Ursula Lauper, Gan Luo, Jason Herb, Matthew Morse, Braden Savage, Martin Zartarian, Shao Lin, *The State University of New York at Albany* 1:00
- 9ID.7 Determination of Bipolar Ionization-Mediated Airborne Virus Inactivation Rates.** DARRYL ANGEL, Jordan Peccia, *Yale University* 1:00
- 9ID.8 Evaluating Particle Collection Efficiency in Exhaled Breath Condensate Using an Artificial Lung System.** HAOXUAN CHEN, Airi Harui, Yu Feng, Michael D. Roth, Yifang Zhu, *University of California, Los Angeles* 1:00
- 9ID.9 A Novel Approach for Short-Range Sampling of Respiratory Aerosols in Child Care Centers.** ZHENYU MA, Peter Arts, Khalil Chedid, Aaron Prussin II, Andrew Hashikawa, Krista Wigginton, Adam Laurant, Linsey Marr, Emily Martin, Herek L. Clack, *University of Michigan* 1:00
- 9ID.10 N95 Respirators Provide Superior Source Control for SARS-CoV-2.** JIANYU LAI, Kristen K. Coleman, Sheldon Tai, Jennifer German, Filbert Hong, Barbara J. Albert, Yi Esparza, Aditya Kiran Srikakulapu, Petri Kalliomäki, Maria Schanz, Isabel Sierra Maldonado, Molly Oertel, Naja Fadul, Louie Gold, Kathleen McPhaul, Tianzhou Ma, Benjamin Cowling, Donald K. Milton, *School of Public Health, University of Maryland, College Park* 1:00
- 9ID.11 The Impact of Environmental Aging Processing on Bioaerosol Detection Using Circular Intensity Differential Scattering (CIDS).** DANIEL N. ACKERMAN, Yong-Le Pan, Kevin K. Crown, Ashley R. Ravnholdt, Elizabeth A. Klug, Joshua L. Santarpia, *National Strategic Research Institute* 1:00
- 9ID.12 The Detection of Respiratory Viruses in Heating, Ventilation, and Air Conditioning Units of University Buildings.** ZHOUYUAN WANG, Yangyang Zou, Irene Xagorarakis, Kaisen Lin, *Michigan State University* 1:00
- 9ID.13 Improving Industrial Air Quality: Modeling, Monitoring, and Use of Low-Cost Sensors.** REN GARITY, Jianing Bao, Andrew Metcalf, *Clemson University* 1:00
- 9ID.14 Temporal Variation of SARS-CoV-2 Levels in Wastewater from a Meat Processing Plant.** MEIYI ZHANG, Maria King, *Texas A&M University* 1:00
- 9ID.15 Binding Behaviors of SARS-CoV-2 Virus and Ivermectin.** Kasidy Gossen, MEIYI ZHANG, Brooke Smith, Maria King, *Texas A&M University* 1:00
- 9ID.16 Modifying CDC Manikin Fit Evaluation Method to Match Fit Testing with Human Subjects.** ALI HASANI, Joseph Dawson, Magdalene Fogarasi, Kirstie Snodderly, Dana Rottach, Daniel Porter, Suvajyoti Guha, *Center for Devices and Radiological Health, US FDA* 1:00

**9ID.17 A Retrospective Analysis of the Technological Characteristics of Pediatric Facemasks Marketed within U.S..** Ali Hasani, Bryan Ibarra, Magdalene Fogarasi, Kirstie Snodderly, Dana Rottach, Daniel Porter, SUVAJYOTI GUHA, *Center for Devices and Radiological Health, US FDA*

**9ID.18 Variations In HVAC System Fresh Air Exchange Among Child Care Centers.** HEREK L. CLACK, Khalil Chedid, Andrew Hashikawa, Krista Wigginton, Adam Lauring, Linsey Marr, Emily Martin, *University of Michigan*

**9ID.19 Wearable Air Curtains as Advanced Personal Respiratory Protection.** Samuel Sugarman, E.L. Pfeiffer, HEREK CLACK, *Taza Aya, Inc.*

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9IM INSTRUMENTATION AND METHODS VII: POSTERS

EXHIBIT HALL E

**9IM.1 Using Atomized NaI Particles as a Counting Efficiency Booster for Partial Calibration of Periodic Technical Inspection Reference Particle Counters.** Helmut Krasa, Martin Kupper, Mario Anton Schriefl, ALEXANDER BERGMANN, *Graz University of Technology*

**9IM.2 Measuring the Charger Efficiency in the Electrical Low Pressure Impactor for Fractal Aggregates Using an Aerodynamic Aerosol Classifier.** Nishan Sapkota, Timothy Sipkens, MANG GUAN, Anand Kumar, Steven Rogak, *University of British Columbia*

**9IM.3 Intercomparison of Instrumental Methods Using Model II Regression.** COLLEEN MARCIEL ROSALES, Nicholas E. Brunk, Nicole Hyslop, Nicholas Spada, *University of California, Davis*

**9IM.4 Recommendations for Improving Aerosol Measurement in India.** SATOSHI TAKAHAMA, Arindam Roy, Athanasios Nenes, *LAPI, EPFL (Switzerland)*

**9IM.5 Laboratory Evaluation of the Alphasense Opc-N3, and the Plantower PMS5003 and PMS6003 Sensors.** KAMALJEET KAUR, Kerry Kelly, *University of Utah*

**9IM.6 Investigating Efficient Flight Pathways with Continuous and Discrete Sampling for UAV-based Greenhouse Gas Monitoring at Environmental Infrastructures.** HORIM KIM, Keun Taek Kim, Hyeri Jo, Minyong Yang, Young Su Lee, Sangjae Jeong, Jae Young Kim, *Seoul National University*

**9IM.8 Smoke Impacts on Atmospheric Processing: An Optical Analysis of Broadband Offline and Online Instruments on Geographically Diverse Biofuels.** NEVIL FRANCO, Abu Sayeed Md Shawon, Megan Mouton, Vaios Moschos, Marc Fiddler, Solomon Billiign, Manvendra Dubey, Katherine Benedict, Kyle Gorkowski, *Los Alamos National Laboratory*

**9IM.9 Fast Characterization of Irregularly Shaped Particles Using Elastic Light Scattering.** AIMABLE KALUME, Jessica Arnold, Chuji Wang, Gorden Videen, Yong-Le Pan, *U.S. Army Research Laboratory*

**9IM.10 Demonstration of the New Aethalometer Model AE36s Performance and Equivalence with Its Predecessor, AE33.** MARTIN RIGLER, Gašper Lavrič, Matic Ivančič, Viktor Pilko, Bálint Alföldy, Irena Ježek Breclj, Asta Gregorič, *Aerosol d.o.o.*

**9IM.12 Multi-Wavelength Multi-Angle Technique and Next Generation Particle Sensor: An Approach for Particle Characterization.** SHRUTI CHOUDHARY, Tandeep Chadha, Jiayi Fang, Marit Meyer, Paul Mudgett, Pratim Biswas, *University of Miami*

**9IM.13 Capturing Single Aerosol Particle-Droplets into a Microfluidic Device for Surface-Enhanced Raman Spectroscopic Analysis.** WENDY FLORES-BRITO, Shelley Anna, Coty Jen, Ryan Sullivan, *Carnegie Mellon University*

**9IM.14 Challenges in Measurement and Interpretation of the Lidar-retrieved Aerosol Vertical Turbulent Mass Fluxes.** NICHOLAS MESKHIDZE, Ajmal Rasheeda Satheesh, Markus Petters, *NC State University*

- 9IM.15 Effect of the Uncertainty in Density of Polystyrene Latex (PSL) Spheres on the Calibration of Aerosol Instruments.** 1:00 JULIE PONGETTI, Chris Nickolaus, Jonathan Symonds, *Cambustion Ltd*
- 9IM.16 Aerosol Sensor Based on Air-gap Fabry-Perot Optical Microcavities.** Chandra Raman, JACOB WILLIAMSON, Spencer Olson, Meagan Plummer, Robert Leonard, Matthew Marshall, *Georgia Institute of Technology*
- 9IM.17 Performance Characterization of an Aircraft Inlet for Aerosol-Gas Sampling.** DA YANG, Rainer Volkamer, Lee Mauldin, Margarita Reza, Suresh Dhaniyala, *University of Colorado Boulder*
- 9IM.18 Aspiration Efficiency of Purpleair Pa -2- Flex Air Quality Sensor under Varying Wind Conditions.** NAGARAJAN RADHAKRISHNAN, Suresh Dhaniyala, *Clarkson university*
- 9IM.19 Long-Term Performance of Low-Cost PM2.5 Sensor Calibration Utilizing Denver's Love My Air Network.** TEHYA STOCKMAN, Shelly L. Miller, *University of Colorado Boulder*
- 9IM.20 Combining Low-cost Air Quality Sensors with a Micronet for Fine-scale Monitoring in NYC.** Ellie Hojeily, JANIE SCHWAB, Jason Covert, Kit Moore, Matthew Brooking, Sarah Lu, Md. Aynul Bari, Scott Miller, *University at Albany, SUNY*
- 9IM.21 Performance Evaluation of Low-Cost PM Sensor Based on Light Scattering According to Particle Size: Focusing On Coincidence Effect.** KEUN TAEK KIM, Horim Kim, Xin Zhao, Hyeri Jo, Sangjae Jeong, Jae Young Kim, *Seoul National University*
- 9IM.23 Real-Time Measurement of Aerosol Size Distributions with the Fast Integrated Mobility Spectrometer (FIMS).** DAISY WANG, Jiaoshi Zhang, Jeremy Buhler, Jian Wang, *Washington University in St. Louis*
- 9IM.24 Characterization of a Commercially Available Aerosol Raman Hyperspectral Imaging Instrument for Single Particle Analysis.** MAXWELL FREEMAN, J. Alex Huffman, *University of Denver*
- 9IM.25 Characterization of Aerosolized Micro-/Nanoplastic Aerodynamic Diameter.** GINA M. MORENO, Richard Cavaliere, Andrea J. Tiwari, Maynard Havlicek, Daniel Bissell, Phoebe A. Stapleton, *Rutgers University*
- 9IM.26 Real-Time Separation and Detailed Characterization of Aspherical Submicron Aerosols.** SCHUYLER LOCKWOOD, David Bell, Alla Zelenyuk, *Pacific Northwest National Laboratory*
- 9IM.27 Development of a Chemical Sense Aerosol Testing Capability.** Will Sellors, GEORGE SPENCE, Sarah Marchant, Peter Jones, *Dstl, Porton Down, Salisbury, Wiltshire, SP4 0JQ, UK*
- 9IM.28 A Modular Research Tool for Evaluation of Toxic Chemical Aerosol Detectors.** DINESH DURÁN JIMÉNEZ, Tom Venema, Duurt Alkema, Ruud Busker, Arjan van Wuijckhuijse, *TNO*

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9NM NANOPARTICLES AND MATERIALS SYNTHESIS I: POSTERS

EXHIBIT HALL E

- 9NM.1 High-Resolution Differential Mobility Analysis (HR-DMA) of Nickel Oxide Nanoparticles Synthesized in Flat Premixed Droplet Seeded Flame (FPDSF).** 1:00 Farnaz Khosravi, Owen Fuhr, Dylan Errico, Mahmoud Ashour, Christian Bjork, FRANCESCO CARBONE, *University of Connecticut*
- 9NM.2 NIR-shielding and Visible-light-transmitted Tungsten Bronze Particles.** Hao Tu, DA-REN CHEN, *Virginia Commonwealth University*
- 9NM.3 Direct Carbon Capture Repeatability of Magnesium Oxide (MgO) Nanoparticles Synthesized by Aerosol Methods at Room Temperature.** 1:00 KYUNGIL CHO, Yeryeong Kang, Jihye Park, Sukbyung Chae, Changhyuk Kim, *Pusan National University*

- 9NM.4 The Effect of Cooling Rate on Crystallinity of Au Aerosol Nanoparticles.** YI WANG, Sotiris Pratsinis, *ETH Zurich, Switzerland*  
1:00
- 9NM.5 A Pelletizing Method for the Mass Synthesis of Functionalized-Polyethylenimine-Based Adsorbents for Carbon Dioxide Capture in Continuous Exhaust Gas Flow Conditions.** YOUNGHUN KIM, Inyong Park, Dae Hoon Park, Gunhee Lee, Jungho Hwang, Bangwoo Han, *Korea Institute of Machinery & Materials, Yonsei University*  
1:00
- 9NM.6 Experimental Study on the Fabrication of Light-transmitting Air Filter using Electrospinning.** INYONG PARK, Younghun Kim, Sang Bok Kim, Gunhee Lee, Dae Hoon Park, Kee-Jung Hong, Dongho Shin, Bangwoo Han, *Korea Institute of Machinery & Materials*  
1:00
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9RA REMOTE AND REGIONAL ATMOSPHERIC AEROSOLS I: POSTERS  
EXHIBIT HALL E

- 9RA.1 Seasonal Differences of New Particle Formation Characteristics Based on the Real-Time Measurements of Aerosols in South Korea.** YOONKYEONG HA, Jeongbeen Kim, Soodong Lee, Kyungil Cho, Ji Yi Lee, Kyoung-Soon Jang, Mijung Song, Joonyoung Ahn, Kwangyul Lee, Changhyuk Kim, *Pusan National University*  
1:00
- 9RA.2 Formation of 2-Methyltetrol and 2-Methylglyceric Acid in the Northern Hemisphere from Marine Isoprene Emission.** JIE ZHANG, Minsu Choi, Junyi Liu, Xiang Ding, Mei Zheng, Qi Ying, *Texas A&M University*  
1:00
- 9RA.3 A Study on Elevated Fine Particles at a Crop-Agricultural Site in Gimje, South Korea: Impact of Local Sources on Event Days.** JOONWOO KIM, Jiho Jang, Dahye Oh, Haebum Lee, Kihong Park, *Gwangju Institute of Science and Technology*  
1:00
- 9RA.4 Low-cost Sensor Network for Monitoring Indoor, Outdoor, and Personal PM<sub>2.5</sub> Exposure in Seattle during the 2020 Wildfire Season.** Jiayang He, Ching-Hsuan Huang, Elena Austin, Edmund Seto, IGOR NOVOSSELOV, *University of Washington*  
1:00
- 9RA.5 Multi-modal Chemical Characterization of Brown Carbon in Atmosphere and Snowpack from the Colorado Rockies.** STEVEN SHARPE, Kyla Siemens, Felipe Rivera-Adorno, Jay Tomlin, Nurun Nahar Lata, Zezhen Cheng, Erik Hulm, Matthew Fraund, Ryan Moffet, Swarup China, Alexander Laskin, *Purdue University*  
1:00
- 9RA.6 Exploratory Overview of University Mountain Campus in the Front Range of Colorado for Possible Future Atmospheric Research.** J. ALEX HUFFMAN, Maxwell Freeman, Paola Gascot, Alyssa Knaus, Aleksandra Volkova, Olivia Wuttke, *University of Denver*  
1:00
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9SA SOURCE APPORTIONMENT II: POSTERS  
EXHIBIT HALL E

- 9SA.1 Feature Extraction and Prediction of PM<sub>2.5</sub> Chemical Constituents in Seoul Using GAIN Machine Learning Models.** SONGKANG KIM, Jieun Park, Ilhan Ryoo, Taeyeon Kim, Yeonseung Cheong, Hyejin Shin, Sunghwan Shim, Sujung Han, Minsu Kang, Seung-Muk Yi, *Seoul National University, Seoul, Korea*  
1:00
- 9SA.2 Elemental Characterization and Source Apportionment of Fine Particulate Matter (PM<sub>2.5</sub>) in Industrial and Non-Industrial Areas of Lagos State, Nigeria.** IFECHUKWUDE CHIEDU, Faith Oyibo, *Federal Institute of Industrial Research Lagos, Nigeria.*  
1:00
- 9SA.3 Effects of Seasonal Management Programs on PM<sub>2.5</sub> in Seoul, Korea Using Dispersion Normalized PMF.** ILHAN RYOO, Jieun Park, Songkang Kim, Hyejin Shin, Sunghwan Shim, Sujung Han, Taeyeon Kim, Yeonseung Cheong, Kwon Ho Jeon, Hyeog Ki Chae, Kyungmi Lee, Ju Gyo Lee, Seung-Muk Yi, *Seoul National University*  
1:00
- 9SA.4 Organic Aerosol Concentration, Composition, and Sources Analysis at Pretoria, South Africa Employing Fourier-transform Infrared Spectroscopy (FT-IR) and Positive Matrix Factorization (PMF).** MUHAMMAD NAVEED ANWAR, Satoshi Takahama, Christopher Oxford, Randall Martin, Adele L. Igel, Ann Dillner, *University of California, Davis*  
1:00

- 9SA.5 Source Apportionment Using DN-PMF and Oxidative Potential of PM1.0.** HYEJIN SHIN, Taeyeon Kim, Jiwon Ryu, Kwon Ho Jeon, Seung-Muk Yi, *Seoul National University, Seoul, Korea*  
1:00
- 9SA.6 Characterizing Los Angeles Aerosol through Long-Term High-Resolution Measurements.** HAROULA D. BALIAKA, Ryan X. Ward, John Seinfeld, *California Institute of Technology*  
1:00
- 9SA.7 Source Apportionment of Near-Road Atmospheric Aerosols in Ontario, California.** BRADLEY RIES, Yifan Ding, Mohammad Sowlat, Payam Pakbin, Akula Venkatram, Roya Bahreini, *University of California, Riverside*  
1:00
- 9SA.8 Particulate Emission Characterization of Exhaust from Residential Oil and Gas Fired Heating Appliances.** JAKE LINDBERG, Rebecca Trojanowski, Stephen Galvin, Thomas Butcher, *Brookhaven National Labs*  
1:00
- 9SA.9 Investigating Aqueous Processing of Submicrometer Aerosols during the Spring HI-SCALE Campaign in the Southern Great Plains.** JUSTIN TROUSDELL, John Shilling, Jerome Fast, Qi Zhang, *University of California, Davis*  
1:00
- 9SA.10 Source Apportionment of PM2.5 with Continuous Speciation Monitoring Data and Time-integrated Measurements of Organic Markers.** Yi-Hsien Liu, Chun-Sheng Huang, Wei-Cheng Tsai, Ho-Tang Liao, Chia-Yang Chen, CHANG-FU WU, *National Taiwan University*  
1:00
- 9SA.11 Machine Learning Techniques for Rapid Analysis of Particle Morphology and Elemental Composition.** BORIS GALVIS, Fabiana Franceschi, Natali Zambrano, David Restrepo, Olga Lucia Quintero Montoya, Jose Duque, Elena Montilla Rosero, Daniela Bustos, Nestor Rojas, *Universidad del Valle*  
1:00
- 9SA.13 Molecular Characterization of First- and Second-Generation Oxidation Products of Decamethylcyclopentasiloxane in Ambient Fine Particulate Matter.** JEEWANI MEEPAGE, Josie Welker, Saeideh Mohammadi, Christopher Brunet, Hanalei Lewine, Rachel Marek, Keri Hornbuckle, Eleanor Browne, Charles Stanier, Elizabeth Stone, *University of Iowa*  
1:00
- 9SA.14 PM2.5 Source Changes for 2010-2019 in New York and New Jersey by Dispersion Normalized PMF.** Yunle Chen, David Q. Rich, PHILIP K. HOPKE, *University of Rochester*  
1:00

Thursday 3:00 PM - 3:30 PM  
Coffee Break with Exhibitors

Thursday 3:30 PM - 5:00 PM  
Technical Session 10: Platform

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10AC AEROSOL CHEMISTRY VIII: ISOPRENE SOA  
PORTLAND BALLROOM – David Bell and Erik Helstrom, chairs

- 10AC.1 HPAID2 is a Peroxyhemiacetal and a Source of SOA.** REBECCA RICE, Jason Surratt, Zhenfa Zhang, Avram Gold, *University of North Carolina at Chapel Hill*  
3:30
- 10AC.2 Chemical Composition of Secondary Organic Aerosol Formed from the Oxidation of Isoprene-Derived C5H10O3 Reactive Uptake Products.** MOLLY FRAUENHEIM, Jason Surratt, Zhenfa Zhang, Avram Gold, *University of North Carolina at Chapel Hill*  
3:45
- 10AC.3 Non-Equilibrium Behavior in Fresh Isoprene Secondary Organic Aerosol.** Yuzhi Chen, Rahul Zaveri, Gregory W. Vandergrift, Zezhen Cheng, Swarup China, Alla Zelenyuk, JOHN SHILLING, *Pacific Northwest National Laboratory*  
4:00
- 10AC.4 Decreases in Epoxide-Driven Secondary Organic Aerosol Production under Highly Acidic Conditions: The Importance of Acid-Base Equilibria.** Madeline Cooke, N. Cazimir Armstrong, Alison Fankhauser, Yuzhi Chen, Ziyang Lei, Yue Zhang, Isabel Ledsky, Barbara Turpin, Zhenfa Zhang, Avram Gold, V. Faye McNeill, Jason Surratt, ANDREW AULT, *University of Michigan*  
4:15

**10AC.5 Studies of Isoprene SOA Formation Under Atmospherically-Relevant RO<sub>2</sub> Conditions.** NADIA TAHSINI, Hannah Kenagy, 4:30 Matthew Goss, Yaowei Li, Frank Keutsch, Jesse Kroll, *MIT*

**10AC.6 Investigating the Heterogeneous Formation and Degradation of Oligomers in Isoprene Epoxydiol-Derived Secondary Organic Aerosol.** CARA WATERS, Katherine Kolozsvari, Jin Yan, Madeline Cooke, Alison Fankhauser, N. Cazimir Armstrong, Rebecca Parham, Yao Xiao, Carlie Poworoznek, Zhenfa Zhang, Avram Gold, Jason Surratt, Andrew Ault, *University of Michigan*

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10ES SYMPOSIUM: AEROSOL-ECOSYSTEM INTERACTIONS III

F151 – Celia Faiola and Namrata Panji, chairs

**10ES.1 Biophysical Impacts of Aerosols on Terrestrial Climate.** TC CHAKRABORTY, Xuhui Lee, Dave Lawrence, *Pacific Northwest National Laboratory*  
3:30

**10ES.2 Exploring Toxic Cyanobacteria Blooms under Current and Future Environmental Conditions in the Great Lakes.**  
3:45 REAGAN M ERRERA, Casey Godwin, Mark Rowe, Craig Stow, Steve Ruberg, Henry Vanderploeg, Andrea Vander Woude, Gregory Doucette, Richard Stumpf, Russ Miller, Gregory Dick, Benjamin Kramer, *NOAA-GLERL*

**10ES.3 Volcanic Ash and Dust Induce Differing Responses in Marine Phosphorus Cycling Depending on the Deposition Amount.** CASSANDRA GASTON, Hope Elliott, Kimberly Popendorf, Amanda Oehlert, Arash Sharifi, Edmund Blades, Haley Royer, Clement Pollier, Ali Pourmand, Andrew Ault, Swarup China, Nurun Nahar Lata, Zezhen Cheng, Ravi Kukkadapu, Mark Bowden, Mark Engelhard, Adrian Hornby, Esteban Gazel, *University of Miami*  
4:00

**10ES.4 Ice-nucleating Particle Characteristics and Relation to Bioaerosols in Air and in Precipitation at a Semi-arid Grassland Site.** Claudia Mignani, PAUL DEMOTT, Thomas C. J. Hill, Marina Nieto-Caballero, Noelle Bryan, Alexei Kiselev, Nurun Nahar Lata, Swarup China, Teresa Feldman, Chamari Mampage, Kathryn Moore, Amy P. Sullivan, Ben Ascher, Nick Falk, Sean Freeman, Gabrielle Leung, Allie Mazurek, Christine Neumaier, Thomas Leisner, Susan van den Heever, Leah Grant, Elizabeth Stone, Russell Perkins, Sonia Kreidenweis, et al., *Colorado State University*  
4:15

**10ES.5 Comparative Assessment of Bioaerosol Fluorescence, Microbial Communities, and Ice Nucleating Particle Abundance During Strong Relative Humidity Shifts in Colorado Grasslands.** MARINA NIETO-CABALLERO, Noelle Bryan, Claudia Mignani, Thomas C. J. Hill, Kevin R. Barry, Brian Heffernan, Teresa Feldman, Chamari Mampage, Ben Ascher, Jacob Escobedo, Nick Falk, Sean Freeman, Gabrielle Leung, Allie Mazurek, Christine Neumaier, Daniel Veloso-Aguila, Jessie Creamean, Susan van den Heever, Elizabeth Stone, Leah Grant, Russell Perkins, Paul DeMott, Sonia Kreidenweis, *Colorado State University*  
4:30

**10ES.6 Characterizing Bioaerosols during Quiescent and Convective Conditions in a Grassland Environment.** TERESA FELDMAN, Chamari Mampage, Claudia Mignani, Marina Nieto-Caballero, Thomas C. J. Hill, Brian Heffernan, Christine Neumaier, Ben Ascher, Jacob Escobedo, Nick Falk, Sean Freeman, Gabrielle Leung, Allie Mazurek, Daniel Veloso-Aguila, Noelle Bryan, Leah Grant, Susan van den Heever, Russell Perkins, Paul DeMott, Sonia Kreidenweis, Elizabeth Stone, *University of Iowa*  
4:45

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10IA INDOOR AEROSOLS V

E142-144 – Shahar Tsameret and Sabrina Westgate, chairs

**10IA.1 Indoor Organic Aerosol Formation Near Building Occupants Using Computational Fluid Dynamics.** SUWHAN YEE, Donghyun Rim, *Pennsylvania State University*  
3:30

**10IA.2 Understanding the Reduction of Indoor PM<sub>2.5</sub> Emissions by Using the Two-Dimensional Nature of Wood Pyrolysis.**  
3:45 JOHN FLYNN, Tami Bond, *Colorado State University*

**10IA.3 Indoor Air Pollution in an Academic Institution: PM Levels, Chemical Composition, and Possible Health Impact.**  
4:00 DEBAYAN MANDAL, Abhishek Chakraborty, Shruti Tripathi, *Indian Institute of Technology Bombay*



- 10IA.4 Insights into Low-Cost Particle Sensors Using Size-Resolved Scattering Intensity of Indoor Aerosols.** ALOK KUMAR  
4:15 THAKUR, Jonathan Gingrich, Marina Vance, Sameer Patel, *Indian Institute of Technology Gandhinagar*
- 10IA.5 Characterizing the Impact of Different Environments (Indoor and Outdoor) on the Performance of Low-cost Particulate Matter (PM) Sensors.** SABRINA WESTGATE, Zahra Shivji, Nga Lee Ng, *Georgia Institute of Technology*
- 10IA.6 Low-Cost Indoor Sensor Deployment for Predicting PM<sub>2.5</sub> Exposure.** SHAHAR TSAMERET, Jiayu Li, Daniel Furuta, Albert Presto, Provat Saha, *University of Miami*
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10ID SYMPOSIUM: AEROSOL SCIENCE AND INFECTIOUS DISEASE III: INFECTIOUS BIOAEROSOL FATE  
E145/146 – Josh Santarpia and Gedi Mainelis, chairs

- 10ID.1 Gas Composition and Humidity Affect the Stability of Enveloped Viruses.** ALEXANDRA LONGEST, Rania Smeltz, Nisha Duggal, Linsey Marr, *Virginia Tech*
- 10ID.2 Ambient Concentrations of CO<sub>2</sub>(g) Affects the Aero-Stability of SARS-CoV-2.** ALLEN E. HADDRELL, Henry Oswin, Tristan Cogan, Joshua Robinson, Jianghan Tian, Robert Alexander, Jamie Mann, Darryl Hill, Adam Finn, Andrew Davidson, Jonathan P. Reid, *University of Bristol*
- 10ID.3 Persistence of Phi6, a SARS-CoV-2 Surrogate, in Simulated Indoor Environments: Effects of Humidity and Material Moisture Adsorption.** ELOISE PARRY-NWEYE, Zhenlei Liu, Youss Dhaouadi, Xin Guo, Jianshun Zhang, Dacheng Ren, *Syracuse University*
- 10ID.4 Determination of Bipolar Ionization-Mediated Airborne Virus Inactivation Rates.** DARRYL ANGEL, Jordan Peccia, *Yale University*
- 10ID.5 A Novel Approach to Understanding Viral Aerosol Stability.** ELIZABETH A. KLUG, Danielle N. Rivera, Don Collins, Ningjin Xu, Sean Kinahan, St. Patrick Reid, Daniel N. Ackerman, Ashley R. Ravnholdt, Vicki Herrera, Joshua L. Santarpia, *University of Nebraska Medical Center (UNMC)*
- 10ID.6 Effects of Chemically-reductive Gas Contaminants on Inactivation of Airborne Viruses by Non-thermal Plasma.**  
4:45 ZHENYU MA, Herek L. Clack, *University of Michigan*
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10IM INSTRUMENTATION AND METHODS VIII: SAMPLING AND GENERATION  
F150 – Suresh Dhaniyala and Teyha Stockman, chairs

- 10IM.1 Performance Characterization of an Aircraft Inlet for Aerosol-Gas Sampling.** DA YANG, Rainer Volkamer, Lee Mauldin, Margarita Reza, Suresh Dhaniyala, *University of Colorado Boulder*
- 10IM.2 Low-Cost Characterization of Wildfire Emissions Using a Novel Sensor Array.** AMANDA GAO, Matthew Goss, Erik Helstrom, Jesse Kroll, *MIT*
- 10IM.3 Effects of Lens Geometry and Nozzle Dimensions on Aerodynamic Focusing.** Harrison Griffin, Mustafa Hadj Nacer, Salix Bair, Bjoern Bingham, W. Patrick Arnott, Judith Chow, John Watson, XIAOLIANG WANG, *University of Nevada, Reno*
- 10IM.4 Aerosol Sampling from Aircraft: Impact of Turbulence on Aspiration and Transmission Efficiencies.** NAGARAJAN RADHAKRISHNAN, Sreekes Kookkal, Suresh Dhaniyala, *Clarkson university*
- 10IM.5 The BioCascade-David: An Integrated Cascade Impactor for Inhalation Toxicology and Bioaerosol Collection.** SRIPRIYA NANNU SHANKAR, Yuetong Zhang, Yuqiao Chen, Eric Le, William Vass, John Lednicky, Tracey Logan, Rebecca Messcher, Gregory S. Lewis, Arantzazu Eiguren-Fernandez, Stavros Amanatidis, Tara Sabo-Attwood, Chang-Yu Wu, *University of Florida*

**10IM.6 Volatility Distribution of Organic Aerosols using ChemSpot Instrument.** PURUSHOTTAM KUMAR, James Hurley, Braden Stump, Athena Xu, Nathan Kreisberg, Nga Lee Ng, Pat Keady, Susanne Hering, Gabriel Isaacman-VanWertz, *Virginia Tech*  
4:45

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10SA SOURCE APPORTIONMENT III

E147/148 – James Schwab and Jenna Ditto, chairs

**10SA.1 An Improved Understanding of Ambient VOC Sources in New York City Metropolitan Area.** LUCILLE JOANNA BORLAZA-LACOSTE, Md. Aynul Bari, Sarah Lu, Philip K. Hopke, *University at Albany, SUNY*  
3:30

**10SA.2 Improved Source Apportionment of Black Carbon-Containing Particles in a Complex Tropical Urban Environment: Insight from a Soot Particle Aerosol Mass Spectrometer.** Mutian Ma, Laura-Helena Rivellini, ALEX K.Y. LEE, *Environment and Climate Change Canada*  
3:45

**10SA.3 Detection, Spatial Analysis and Source Apportionment of Polycyclic Aromatic Hydrocarbons using a Mobile Aerosol Mass Spectrometer.** OLADAYO OLADEJI, Albert A. Presto, Sunhye Kim, *Carnegie Mellon University*  
4:00

**10SA.4 Real-time Detection of Condensed Polycyclic Aromatic Hydrocarbons (PAH) on a Molecular Composition Level at Low  $\mu\text{g}/\text{m}^3$  Levels by CHARON FUSION PTR-TOF 10k.** MARKUS MUELLER, Markus Leiminger, Andreas Klinger, Tobias Reinecke, *IONICON Analytik GmbH, Innsbruck, Austria*  
4:15

**10SA.5 New Markers and Monitoring Concepts for Ship Emissions Using Single-Particle Mass Spectrometry.** Johannes Passig, Julian Schade, Ellen-Iva Rosewig, Lukas Anders, Robert Irsig, Seongho Jeong, Thorsten Streibel, Thomas Adam, Hendryk Czech, Andreas Walte, RALF ZIMMERMANN, *University of Rostock*  
4:30

**10SA.6 Rapid Summertime Transformation of Biomass Burning and Other Emissions to Highly Aged Toxic Background Organic Aerosol.** CHRISTINA N. VASILAKOPOULOU, Angeliki Matrali, Ksakousti Skylakou, Evangelia Siouti, Maria Georgopoulou, Kalliopi Florou, David Patoulias, Andreas Aktypis, Christos Kaltsonoudis, Athanasios Nenes, Spyros N. Pandis, *University of Patras, Greece*  
4:45

Thursday 5:30 PM - 6:30 PM

Aerosol Science of Infectious Diseases Science and Policy Panel Discussion (E145/146)

Thursday 6:30 PM - 8:00 PM

Technical Program Committee Meeting (D136)

Thursday 7:00 PM - 9:00 PM

ASCENT Meeting (E142-144)

Friday

Friday 8:00 AM - 9:15 AM

Technical Session 11: Platform

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11AC AEROSOL CHEMISTRY IX: NEW PARTICLE FORMATION

PORTLAND BALLROOM – Deborah Gross and Rebecca Rice, chairs

**11AC.1 Atmospheric Nucleation Potential of Complex Mixtures.** COTY JEN, Jack Johnson, *Carnegie Mellon University*  
8:00

**11AC.2 Detection of Sulfuric Acid - Dimethyl Amine Nucleation Process using Ambient Pressure Proton Transfer Reaction Mass Spectrometry (AP-PTRMS).** JUN ZHENG, *Nanjing University of Information Science and Technology*  
8:15

**11AC.3 Biogenic New Particle Formation in the Presence of SO<sub>2</sub> and Ammonia.** VIGNESH VASUDEVAN GEETHA, Lee Tiszenkel, 8:30 Shanhu Lee, *The University of Alabama in Huntsville*

**11AC.4 Chemical and Meteorological Controls on New Particle Formation in the Southern Great Plains.** BRI DOBSON, Harald Stark, Daniel Katz, Jordan Krechmer, Chongai Kuang, Manjula Canagaratna, Douglas Worsnop, Eleanor Browne, *University of Colorado Boulder & CIRES*

**11AC.5 Chemical Identification of New Particle Formation and Growth Precursors through Positive Matrix Factorization of Ambient Ion Measurements.** DANIEL KATZ, Aroob Abdelhamid, Harald Stark, Manjula Canagaratna, Douglas Worsnop, Eleanor Browne, *University of Colorado Boulder & CIRES*

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11AE AEROSOL EXPOSURE II

F151 – Sinan Sousan and Ed Fortner, chairs

**11AE.1 Use of Real-Time Aerosol Monitors to Evaluate Secondhand Electronic Cigarette Aerosol Exposure Inside Vehicles.** 8:00 SINAN SOUSAN, Ronald Mooring, Sarah Fresquez, Yoo Min Park, Vivien Coombs, Nicole Bertges, Luke Thomas, Emily Gold, Anish Gogineni, Alex Tiet, Jack Pender, Eric Soule, *Department of Public Health, East Carolina University*

**11AE.2 Inhalation Doses of Back Carbon at the US-Mexico Port of Entry San Ysidro/El Chaparral.** Rita Zurita, Penelope 8:15 Quintana, Yanis Toledano-Magaña, Fernando Wakida, LUPITA D. MONTOYA, Javier Castillo, *Universidad Autónoma de Baja California, México*

**11AE.3 Mobile Metal Aerosol Measurement in Industrially Adjacent Neighborhoods.** EDWARD FORTNER, Mina Tehrani, 8:30 Benjamin Werden, Megan Claffin, Conner Daube, Tara Yacovitch, Joseph Roscioli, Scott Herndon, Brian Lerner, Peter F. DeCarlo, *Aerodyne Research, Inc.*

**11AE.4 PAH Concentration in Size Resolved Aerosol Emissions during Firefighting Activity.** SHRUTI CHOUDHARY, Darlington 8:45 Imhanzuarua, Umer Bakali, Chitvan Killawala, Natasha Solle, Erin Kobetz, Alberto Caban-Martinez, Pratim Biswas, *University of Miami*

**11AE.5 Optimization of a DIY Air Cleaner Design to Reduce Residential Air Pollution Exposure for a Community Experiencing Environmental Injustices.** Nicholas Clements, SUMIT SANKHYAN, Allison Heckman, Jonathan Aumann, Shelly L. Miller, 9:00 *University of Colorado Boulder*

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11CM CONTROL AND MITIGATION TECHNOLOGY II

E142-144 – Igor Novosselov and Christine McCool, chairs

**11CM.1 Optimizing Personal Exposure to Particulate Matter, Energy Consumption and Thermal Comfort Inside a Test House.** 8:00 NISHCHAYA MISHRA, Marina Vance, Atila Novoselac, Sameer Patel, *Indian Institute of Technology Gandhinagar*

**11CM.2 Long-term Experience with Rapid Air Filtration (6 to 15 Air Changes Per Hour) in a K-5 Elementary School Using HEPA and Do-It-Yourself (DIY) Air Purifiers during the COVID-19 Pandemic.** DEVABHAKTUNI SRIKRISHNA, *Patient 8:15 Knowhow, Inc.*

**11CM.3 Development of a New Laboratory Test Methodology for Rapid Ageing of HVAC Filters with a Representative Urban Aerosol Mass Size Distribution at High Concentration.** CHUNXU HUANG, Iane Gomes, Laura Ajala, Elliot Cram, Ta-Kuan 8:30 Chuang, Nusrat Jung, Brandon E. Boor, *Purdue University*

**11CM.4 Experimental and Theoretical Studies on Characterisation and Capture of Single-Wire Square Crosssectional Electrostatic Precipitator in Indoor Environment.** AISWARYA KUMAR, Prashant Nawale, Y. S. Mayya, Manoranjan Sahu, 8:45 *Indian Institute of Technology Bombay*

**11CM.5 PEGI: Peroxide Enhanced Germicidal Irradiation for Rapid Bioaerosol Disinfection.** EMMALEE BIESIADA, Mark Hernandez, *University of Colorado at Boulder*  
9:00

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11ID SYMPOSIUM: AEROSOL SCIENCE OF INFECTIOUS DISEASES IV: DISINFECTION MEASURES AND CONSEQUENCES  
E145/146 – Jose Jimenez and Don Milton, chairs

**11ID.1 Secondary Organic Aerosol Production from a 222 nm Germicidal Lamp.** MATTHEW GOSS, Victoria Barber, Lesly Franco  
8:00 Deloya, Lexy LeMar, Yaowei Li, Erik Helstrom, Manjula Canagaratna, Frank Keutsch, Jesse Kroll, *MIT*

**11ID.2 Health Impacts of GUV222-Generated Pollution under Low Ventilation May Be Its Most Important Limitation.** JOSE-  
8:15 LUIS JIMENEZ, Joost de Gouw, Daven Henze, Zhe Peng, *University of Colorado, Boulder*

**11ID.3 Far-UVC Generated Ozone Levels in a Hotel and Comparison to Outdoor Concentrations.** PETRI KALLIOMÄKI, Phillip  
8:30 Stratton, Kristen K. Coleman, Aditya Kiran Srikukulapu, Ross Salawitch, Russell R. Dickerson, Shengwei Zhu, Jelena Srebric,  
Donald K. Milton, *University of Maryland*

**11ID.4 The Efficacy of Grignard Pure(TM) to Inactivate an Airborne SARS-CoV-2 Surrogate.** Grishma Desai, Gurumurthy  
8:45 Ramachandran, Emanuel Goldman, William Esposito, Antony Galione, Altaf Lal, Toni Choueri, Andre Fay, William Jordan,  
Donald Schaffner, Jack Caravanos, Etienne Grignard, GEDIMINAS MAINELIS, *Rutgers, The State University of New Jersey*

**11ID.5 Do-It-Yourself Air Cleaners as an Emergency Measure to Reduce Indoor Exposure to Respiratory Aerosols.** WILLIAM  
9:00 LINDSLEY, Raymond Derk, Jayme Coyle, Françoise Blachere, Stephen Martin, Jr., Kenneth R. Mead, Donald Beezhold, John  
Noti, *National Institute for Occupational Safety and Health*

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11NM NANOPARTICLES AND MATERIALS SYNTHESIS II: FLAME SYNTHESIS  
E147/148 – Yue Zhang and Shalinee Kavadiya, chairs

**11NM.1 Molecular Dynamics Simulations of Nanoscale Heat Transfer in the Free Molecular Regime.** TIMOTHY SIPKENS,  
8:00 *National Research Council Canada*

**11NM.2 Influence of Oxidizing and Reducing Process Gases on Metallic Aerosol Nanoparticles.** VINZENT OLSZOK, Philipp  
8:15 Rembe, Alfred P. Weber, *Clausthal University of Technology*

**11NM.3 High-Resolution Differential Mobility Analysis (HR-DMA) of sub-10nm Nanoparticles Synthesized by the Reactive  
8:30 Spray Deposition Technology.** FARNAZ KHOSRAVI, Evangelos K. Stefanidis, Zhiqiao Zeng, Stoyan Bliznakov, Leonard J.  
Bonville, Radenka Maric, Francesco Carbone, *University of Connecticut*

**11NM.4 Aerosol Detonation Synthesis of Core-Shell TiO<sub>2</sub>-Graphene-TiC Hybrid Photocatalysts.** Ahmed Al Mayyahi, Shusil  
8:45 Sigdel, Placidus Amama, CHRISTOPHER M. SORENSEN, *Kansas State University*

**11NM.5 Process Design for Carbon Black Size and Morphology.** GEORGIOS A. KELESIDIS, Simon Benz, Sotiris Pratsinis, *Rutgers,  
9:00 The State University of New Jersey*

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11RA REMOTE AND REGIONAL ATMOSPHERIC AEROSOLS II  
F150 – Lynn Russell and Katherine Benedict, chairs

**11RA.1 Examining the Vertical Heterogeneity of Aerosols over the Southern Great Plains.** YANG WANG, Chanakya Bagya  
8:00 Ramesh, Scott Giangrande, Jerome Fast, Xianda Gong, Jiaoshi Zhang, Alyssa Matthews, Fan Mei, John Shilling, Jason  
Tomlinson, Dié Wang, Jian Wang, *University of Miami*

- 11RA.2 Humidity-Induced Changes in the Optical Properties of Dust Particles.** KYLE GORKOWSKI, Rachael Dal Porto, Christopher Cappa, Ryan Farley, Qi Zhang, Abu Sayeed Md Shawon, Jordan Spencer, James E. Lee, Katherine Benedict, Manvendra Dubey, Allison Aiken, *Los Alamos National Laboratory*  
8:15
- 11RA.3 Large Contribution of Shoreline Wave Breaking to Coastal Cloud Condensation Nuclei Population.** SHENGQIAN ZHOU, Xianda Gong, Eduardo de Azevedo, Francisco Reis, Matthew Salter, Timothy Bertram, Jian Wang, *Washington University in St. Louis*  
8:30
- 11RA.4 Impacts of Sea Ice Leads on Sea Salt Aerosols in the Arctic: Results from Chemical Transport Modeling.** ERIN EMME, Hannah Horowitz, *University of Illinois Urbana Champaign*  
8:45
- 11RA.5 Annual Variability of Particle Size, Cloud Condensation Nuclei, and Particle Hygroscopicity in the Central Arctic.** Xianda Gong, Jiaoshi Zhang, Betty Croft, Xin Yang, Markus Frey, Rachel Chang, Jessie Creamean, Chongai Kuang, Randall Martin, Arthur J. Sedlacek, Janek Uin, Sascha Willmes, Maria Zawadowicz, Jeffrey R. Pierce, Matthew Shupe, Julia Schmale, JIAN WANG, *Washington University in St. Louis*  
9:00

Friday 9:15 AM - 9:45 AM

Coffee Break

Friday 9:45 AM - 10:45 AM

Technical Session 12: Platform

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12AC AEROSOL CHEMISTRY X: GAS-PHASE SOA PRECURSORS

PORTLAND BALLROOM – Celia Faiola and Bri Dobson, chairs

- 12AC.1 Modeled Impact of Deposition on the Oxidation Pathways of Common Reactive Precursors.** CHENYANG BI, Gabriel Isaacman-VanWertz, *Virginia Tech*  
9:45
- 12AC.2 Identifying and Quantifying Products Formed from the Reaction of Alkenoic Acids with OH Radicals in a Low NO<sub>x</sub> Environment.** ANNA ZIOLA, Paul Ziemann, *University of Colorado Boulder*  
10:00
- 12AC.3 Rapid Photolysis Decay of Gaseous Organic Nitrates Formed from Hydroxyl and Nitrate Radical Oxidation of  $\alpha$ -Pinene and  $\beta$ -Pinene.** MASAYUKI TAKEUCHI, Yuchen Wang, Nga Lee Ng, *Georgia Institute of Technology*  
10:15
- 12AC.4 Measurements of Urban Secondary Organic Aerosol as a Function of Precursor Volatility Class in the Los Angeles Area during Summer 2022.** MELISSA MORRIS, Benjamin Schulze, Andrew Jensen, Douglas A. Day, Pedro Campuzano-Jost, Anne Handschy, Melinda Schueneman, Seonsik Yun, Dongwook Kim, Donna Sueper, Harald Stark, Joost de Gouw, John Seinfeld, Paul Wennberg, Jose-Luis Jimenez, *University of Colorado, Boulder*  
10:30

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12CM CONTROL AND MITIGATION TECHNOLOGY III

E142-144 – Ryan Drover and Bo Yang, chairs

- 12CM.1 Applying Real-Time On-Board Emissions Measurements and GIS Data to Evaluate the Applicability of AIS-based Emissions Inventory Estimates of Ocean-Going Vessels.** RYAN W. DROVER, Thomas Eckel, J. Wayne Miller, David R. Cocker III, *University of California, Riverside*  
9:45
- 12CM.2 Quantifying Ultrafine Particle Exposure and the Effectiveness of Mitigation Strategies for 3D Printers in Various Operating Environments.** TIANYUAN LI, *University of Waterloo*  
10:00
- 12CM.3 Separation of Aerosols by Localized Vapor Condensation.** PAOLO TRONVILLE, María José Rubio, Jesús Marval, Juan Vallejo, *Politecnico di Torino*  
10:15

**12CM.4 Application of Low-Cost Sensor Network for Real-Time Aerosol Monitoring in Medical Settings.** Kaitlyn Glenn, Jiayang He, James Hecker, IGOR NOVOSSELOV, *University of Washington*  
10:30

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12HS HISTORY OF AEROSOL SCIENCE II

F151 – Judy Chow and Susanne Hering, chairs

**12HS.1 History of Ambient Aerosol Sampling for Environmental Health Assessments.** JOHN WATSON, Xiaoliang Wang, Judith Chow, *Desert Research Institute*  
9:45

**12HS.2 A Review of Aerodynamic Lenses Development, Challenges, and Needs.** XIAOLIANG WANG, Salix Bair, Harrison Griffin, Mustafa Hadj Nacer, Bjoern Bingham, W. Patrick Arnott, Judith Chow, John Watson, *Desert Research Institute*  
10:00

**12HS.3 History of Carbon Measurement in Atmospheric Particulate Matter.** STEPHEN MCDOW, Barbara Turpin, *U.S. EPA*  
10:15

**12HS.4 Evolution of Computer Controlled Scanning Electron Microscopy for Characterization of Atmospheric Particles.** GARY CASUCCIO, Traci Lersch, Kristin Bunker, Roger West, Long Li, *RJ Lee Group, Inc.*  
10:30

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12ID SYMPOSIUM: AEROSOL SCIENCE OF INFECTIOUS DISEASES V: INFECTIOUS BIOAEROSOL GENERATION

E145/146 – Richard Thomas and Shanna Ratnesar-Shumate, chairs

**12ID.1 Overview of Respiratory Aerosol Emission Measurements from the University of Bristol AERATOR and PERFORM projects.** Justice Archer, F.K.A. Gregson, Allen E. Haddrell, Joshua Harrison, Lauren McCarthy, Henry Symons, Jianghan Tian, Christopher Orton, Natalie Watson, Brian Saccente-Kennedy, Ben Moseley, Ruth Epstein, James Calder, Pallav Shah, Declan Costello, Bryan R. Bzdek, JONATHAN P. REID, *University of Bristol*  
9:45

**12ID.2 Assessing Aerosol Generation from Procedures and Accidents in Biological Laboratories.** ASHLEY R. 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 (UNMC)*  
10:00

**12ID.3 Coughs and Sneezes Spread Diseases. Replication and Modelling of Infectious Airborne Respiratory Droplets.** Robert Alexander, Jianghan Tian, ALLEN E. HADDRELL, Henry Oswin, Edward Neal, Jamie Mann, Tristan Cogan, Andrew Davidson, Darryl Hill, Jonathan P. Reid, *University of Bristol*  
10:15

**12ID.4 CFD Modeling of Droplet Transport around a Human Body with Tracer gas, Eulerian, and Lagrangian Models.** Donghyun Rim, SEONGJUN PARK, *Pennsylvania State University*  
10:30

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12NM NANOPARTICLES AND MATERIAL SYNTHESIS III

E147/148 – Timothy Sipkens and Farnaz Khosravi, chairs

**12NM.1 Direct Carbon Capture Repeatability of Magnesium Oxide (MgO) Nanoparticles Synthesized by Aerosol Methods at Room Temperature.** KYUNGIL CHO, Yeryeong Kang, Jihye Park, Sukbyung Chae, Changhyuk Kim, *Pusan National University*  
9:45

**12NM.2 Progress in Aerosol-Based Synthesis of Metal-organic Framework (MOF) Particles in Supercritical CO<sub>2</sub>.** IGOR NOVOSSELOV, *University of Washington*  
10:00

**12NM.3 Aerosol-Based 3D Printing Technology for High-Resolution Printing of Single and Composite Materials.** SHALINEE KAVADIYA, Pratim Biswas, *University of Miami*  
10:15

**12NM.4 Quantifying the Chemical Composition and Mass Concentration of Nanoplastic Particles in the Atmosphere Using Real-time Mass Spectrometry.** Sining Niu, Sahir Gagan, Alana Doderio, Zezhen Cheng, Ruizhe Liu, Xingmao Ma, Qi Ying, Manjula Canagaratna, YUE ZHANG, *Texas A&M University*  
10:30

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12RA REMOTE AND REGIONAL ATMOSPHERIC AEROSOLS III

F150 – Jian Wang and Zezhen Cheng, chairs

**12RA.1 Quantification of Anthropogenic and Pyrogenic Particulate Bromine by Aerodyne Aerosol Mass Spectrometer (AMS).**

9:45 DONGWOOK KIM, Pedro Campuzano-Jost, Hongyu Guo, Benjamin A. Nault, Douglas A. Day, Melinda Schueneman, Jason Schroder, Josh DiGangi, Sally Pusede, Glenn Diskin, Donald Blake, Jack Dibb, Rainer Volkamer, Jose-Luis Jimenez, *University of Colorado, Boulder*

**12RA.2 Numerical Study of the Impact of Dust-PM10 on VOCs Reduction in Coniferous Forest.** BORIS KRASOVITOV, Rahul

10:00 Tarodiya, Andrew Fominykh, Avi Levy, Itzhak Katra, *Ben-Gurion University of the Negev, Israel*

**12RA.3 A Study on the Evolution of Smoke from Prescribed Fires in Southeastern US.** RIME EL ASMAR, Rodney J. Weber, M.

10:15 Talat Odman, Greg Huey, David Tanner, Zongrun Li, *Georgia Institute of Technology*

**12RA.4 Comparison of Biases in Filter-Based Aerosol Light Absorption Measurements over a Rural and Urban Area.** JOSHIN

10:30 KUMAR, Nishit Shetty, Patrick Sheridan, Allison Aiken, Manvendra Dubey, August Li, Ganesh Chelluboyina, Benjamin Sumlin, Joseph V. Puthussery, Rajan K. Chakrabarty, *Washington University in St. Louis*

## Friday 11:00 AM - 12:30 PM

### Plenary IV & Awards

11:00 **The Role of Aerosol Science in Understanding and Minimizing the Risk of Airborne Infection Transmission** Lidia Morawska, *Queensland University of Technology*

**Moderator** Shanna Ratnesar-Shumate, *U.S. Department of Homeland Security*

12:00 **Student Poster and Oral Platform Competition Award Presentation** Andrew Metcalf, Student Poster Program Chair, *Clemson University*

12:05 **Fine Particle Arts Competition Award Presentation** Shantanu Jathar, *Colorado State University*

12:10 **Announcement of the Juan de la Mora Prize** Steven Rogak, *University of British Columbia*

12:15 **Concluding Remarks and Preview for 2023** Andy Grieshop and Shanna Ratnesar-Shumate, 2023 and 2024 Conference Chairs, *North Carolina State University, U.S. Department of Homeland Security*

## Friday 12:30 PM - 4:00 PM

### AAAR Board of Directors Meeting (D136)