

# JASON D. SURRATT

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## EDUCATION

**2010** Ph.D., Chemistry, California Institute of Technology, Pasadena, CA  
*Research Advisor: John H. Seinfeld*  
**2003** B.A., Chemistry, North Carolina State University, Raleigh, NC  
**2003** B.S., Meteorology, North Carolina State University, Raleigh, NC

## PROFESSIONAL EXPERIENCE

**2020 - Present**, *Professor*, UNC-CH, Department of Chemistry, Chapel Hill, NC  
**2018 - Present**, *Professor*, UNC-CH, Department of ESE, Chapel Hill, NC  
**2018 - 2021**, *Program Director of the N.C. Per- and Polyfluoroalkyl Substance Testing (PFAST) Network*, UNC-CH, Department of ESE, Chapel Hill, NC  
**2017 - 2021**, *Co-Director for Undergraduate Studies*, UNC-CH, ESE Chapel Hill, NC  
**2015 - 2018**, *Associate Professor*, UNC-CH, Department of ESE, Chapel Hill, NC  
**2010 - 2015**, *Assistant Professor*, UNC-CH, Department of ESE, Chapel Hill, NC

## HONORS AND AWARDS

**2024** Newton Underwood Award for Excellence in Teaching, UNC-CH, Gillings School of Global Public Health  
**2021** Kenneth T. Whitby Award for "outstanding technical contributions to aerosol science and technology by a young scientist," American Association for Aerosol Research (AAAR)  
**2020** Newton Underwood Award for Excellence in Teaching, UNC-CH, Gillings School of Global Public Health  
**2019** *Environmental Science & Technology (ES&T) Letters* 2019 Reviewer Award  
**2019** *Environmental Science & Technology (ES&T) Letters* 2018 Best Paper Award for Zhang et al., "Effect of Aerosol-Phase State on Secondary Organic Aerosol Formation from the Reactive Uptake of Isoprene-Derived Epoxydiols (IEPOX)"  
**2018** Teaching Innovation Award, UNC-CH, Gillings School of Global Public Health  
**2017** *ES&T Letters* Selected Highly Prolific Authors  
**2017** Newton Underwood Award for Excellence in Teaching, UNC-CH, Gillings School of Global Public Health  
**2016** James J. Morgan Early Career Award for "leading the field in new directions through creative ideas," *ES&T*, American Chemical Society  
**2015** Ruth and Philip Hettleman Prize for Artistic and Scholarly Achievement, UNC-CH

- 2015** Editors' Citation for Excellence in Refereeing, *Journal of Geophysical Research (JGR) – Atmospheres*
- 2013** Sheldon K. Friedlander Award for “outstanding dissertation by an individual who has earned a doctoral degree,” American Association for Aerosol Research (AAAR)
- 2013** Camille & Henry Dreyfus Environmental Chemistry Mentor
- 2013** Early Career Award, U.S. Environmental Protection Agency (EPA)
- 2013** ES&T Excellence in Review Award
- 2012** Walter A. Rosenblith New Investigator Award, Health Effects Institute (HEI)
- 2011** Atmospheric Chemistry Colloquium for Emerging Senior Scientists (ACCESS)
- 2008** ScienceWatch.com Fast Breaking Paper – February 2008: In the field of Environment/Ecology for the manuscript entitled “Evidence for Organosulfates in Secondary Organic Aerosol.”
- 2004–2007** EPA Science to Achieve Results (STAR) Graduate Fellowship

## PROFESSIONAL MEMBERSHIPS

American Association for Aerosol Research  
American Geophysical Union  
American Chemical Society

## BIBLIOGRAPHY

*Refereed Articles – Published Status (196 Total; 25,163 total citations, h-index of 80 and i10-index of 157 based on Google Scholar)*

### Annotations:

**S** = graduate student advisee  
**V** = visiting graduate student advisee;  
**U** = undergraduate advisee  
**P** = postdoctoral scholar advisee  
**\*** = corresponding author

1. Rapp, C. N., Niu, S., Armstrong, N. C.<sup>S</sup>, Shen, X., Berkemeier, T., **Surratt, J. D.**, Zhang, Y., Cziczo, D. J. (2024) Ice Nucleating Properties of Glassy Organic and Organosulfate Aerosol, EGU sphere [preprint], <https://doi.org/10.5194/egusphere-2024-3935>.
2. Frauenheim, M.<sup>S</sup>; Offenberg J. H.; Zhang, Z.; **Surratt, J. D.**; Gold, A.\* (2024) Chemical Composition of Secondary Organic Aerosol Formed from the Oxidation of Semivolatile  $\beta$ -IEPOX Isomerization Products. *Environmental Science & Technology*, <https://doi.org/10.1021/acs.est.4c06850>.
3. Li, X.; Wolf, M.; Shen, X.; Steinke, I.; Lai, Z.; Niu, S.; China, S.; Shrivastava, M.; Zhang, Z.; Gold, A.; **Surratt, J. D.**; Bourg, I.; Cziczo, D. J.; Burrows, S.; Zhang, Z.\* (2024) Quantifying and Modeling the Impact of Phase State on the Ice Nucleation Abilities of 2-Methyltetrols as a Key Component of Secondary Organic Aerosol Derived from Isoprene Epoxydiols. *Environmental Science & Technology*, <https://doi.org/10.1021/acs.est.4c06285>.

4. De Haan, D. O.; Hawkins, L. N.; Pennington, E. A.; Welsh, H. G.; Rodriguez, A. A.; Symons, M.; Andretta, A. D.; Rafla, M. A.; De Haan, A. C.; Cui, T.<sup>S</sup>; **Surratt, J. D.**; Cazaunau, M.; Pangui, E.; Doussin, J-F. (2024) Kinetics and Oligomer Products of the Multi-Phase Reactions of Hydroxyacetone with Atmospheric Amines, Ammonium Sulfate, and Cloud Processing. *ACS Earth and Space Chemistry*, <https://doi.org/10.1021/acsearthspacechem.4c00237>.
5. Chang, N. Y.; Eichler, C. M. A.; Cohen Hubal, E. A.; **Surratt, J. D.**, Morrison, G. C.; Turpin, B. J.\* (2024) Exposure to Per- and Polyfluoroalkyl Substances (PFAS) in North Carolina Homes: Results from the Indoor PFAS Assessment (IPA) Campaign. *Environmental Science: Processes & Impacts*, <https://doi.org/10.1039/D4EM00525B>.
6. Lambert, A. M.<sup>S</sup>; Christensen, C. M.<sup>S</sup>; McRee, M. M.; Moschos, V.<sup>P</sup>; James, M. H.; Gordon, J.; Royer, H. M.<sup>P</sup>; Fiddler, M. N.; Turpin, B. J.; Bililign, S.\*; **Surratt, J. D.\*** (2024) Chemical Characterization of Organic Aerosol Tracers Derived from Burning Biomass Indigenous to Sub-Saharan Africa: Fresh Emissions Versus Photochemical Aging. *ACS ES&T Air*, 1 (11), 1463–1482.
7. James, M.; Moschos, V.<sup>P</sup>; McRee, M. M.; Fiddler, M. N.; Turpin, B. J.; **Surratt, J. D.**; Bililign, S.\* (2024) Real-Time Chemical Characterization of Primary and Aged Biomass Burning Aerosols Derived from Sub-Saharan African Biomass Fuels in Smoldering Fires. *Environmental Science: Atmospheres*, 4 (12), 1382–1397.
8. Khan, F.<sup>S</sup>; Kwapiszewska, K.; Romero, A. M.; Rudzinski, K.; Gil-Casanova, D.; **Surratt, J. D.**; Szmigielski, R.\* (2024) Evidence for Cytotoxicity and Mitochondrial Dysfunction in Human Lung Cells Exposed to Biomass Burning Aerosol Constituents: Levoglucosan (LG) and 4-Nitrocatechol (4NC). *Environmental Pollution*, 125173, <https://doi.org/10.1016/j.envpol.2024.125173>.
9. Eichler, C. M. A.; Chang, N. Y.; Amparo, D. E.; Cohen Hubal, E. A.; **Surratt, J. D.**; Morrison, G. C.; Turpin, B. J. (2024) Partitioning of Neutral PFAS in Homes and Release to the Outdoor Environment: Results from the IPA Campaign. *Environmental Science & Technology*, 58 (42), 18870–18880.
10. Hopstock, K. S.; Xie, Q.; Alvarado, M. A.; Moschos, V.<sup>P</sup>; Bililign, S.; **Surratt, J. D.**; Laskin, A.; Nizkorodov, S. A. (2024) Molecular Characterization and Photoreactivity of Organic Aerosols Formed from Pyrolysis of Urban Materials During Fires at the Wildland-Urban Interface. *ACS ES&T Air*, 1 (11), 1495–1506.
11. Chang, N. Y.; Eichler, C. M. A.; Amparo, D. E.; Zhou, J.; Baumann, K.; Hubal, E. A. C.; **Surratt, J. D.**; Morrison, G. C.; Turpin, B. J.\* (2024) Indoor Air Concentrations of Quartz Fiber Filter-Collected Ionic PFAS and Emissions to Outdoor Air: Findings from the IPA Campaign. *Environmental Science: Processes and Impacts*, <https://doi.org/10.1039/D4EM00359D>.
12. McRee, M. M.; Moschos, V.<sup>P</sup>; Fiddler, M. N.; Massabo, D.; **Surratt, J. D.**; Bililign, S.\* (2024) Optical Properties of Organic Aerosol Derived from Burning African Biomass Fuels under Different Relative Humidity and Aging Conditions. *Aerosol Science & Technology*, 1–23, <https://doi.org/10.1080/02786826.2024.2412652>.

13. Xu, R.; Chen, Y.<sup>S</sup>; Ng, S. I.; Zhang, Z.; Gold, A.; Turpin, B. J.; Ault, A. P.\*; **Surratt, J. D.\***; Chan, M. N.\* (2024) Formation of Inorganic Sulfate and Volatile Non-Sulfated Products from Heterogeneous Hydroxyl Radical Oxidation of 2-Methyltetrol Sulfates: Mechanisms and Atmospheric Implications. *Environmental Science & Technology Letters*, 11 (9), 968-974.
14. Eichler, C. M. A.; Davern, M. J.<sup>S</sup>; **Surratt, J. D.**; Morrison, G. C.; Turpin, B. J.\* (2024) Fluorotelomer Alcohol (FTOH) Emission Rates from New and Old Rain Jackets to Air Determined by Iodide High-Resolution Chemical Ionization Mass Spectrometry. *Indoor Environments*, 1 (4), 100055, <https://doi.org/10.1016/j.indenv.2024.100055>.
15. Cooke, M. E.; Waters, C. M.; Asare, J. Y.; Mirrielees, J. A.; Holen, A. L.; Frauenheim, M. P.<sup>S</sup>; Zhang, Z.; Gold, A.; Pratt, K. A.; **Surratt, J. D.**; Ladino, L. A.; Ault, A. P.\* (2024) Atmospheric Aerosol Sulfur Distribution and Speciation in Mexico City: Sulfate, Organosulfates, and Isoprene-Derived Secondary Organic Aerosol from Low NO Pathways. *ACS ES&T Air*, 1 (9), 1037-1052.
16. Cooke, M. E.; Armstrong, N. C.<sup>S</sup>; Fankhasuer, A. M.; Chen, Y.<sup>S</sup>; Lei, Z.; Zhang, Y.<sup>P</sup>; Ledsky, I. R.; Turpin, B. J.; Zhang, Z.; Gold, A.; McNeill, V. F.; **Surratt, J. D.\***; Ault, A. P.\* (2024) Decreases in Epoxide-Driven Secondary Organic Aerosol Production Under Highly Acidic Conditions: The Importance of Acid-Base Equilibria. *Environmental Science & Technology*, 58 (24), 10675-10684.
17. Davern, M. J.<sup>S</sup>; West, G. V.<sup>S</sup>; Eichler, C. M. A.; Turpin, B. J.; Zhang, Y.\*; **Surratt, J. D.\*** (2024) External Liquid Calibration Method for Iodide Chemical Ionization Mass Spectrometry Enables Quantification of Gas-Phase Per- and Polyfluoroalkyl Substances (PFAS) Dynamics in Indoor Air. *Analyst*, 149 (12), 3405-3415.
18. Chen, Y.<sup>S</sup>; Ng, A. E.; Green, J.; Zhang, Y.<sup>P</sup>; Riva, M.<sup>P</sup>; Riedel, T. P.<sup>P</sup>; Pye, H. O. T.; Lei, Z.; Olson, N. E.; Cooke, M. E.; Zhang, Z.; Vizuete, W.; Gold, A.; Turpin, B. J.; Ault, A. P.; **Surratt, J. D.\*** (2024) Applying a Phase-Separation Parameterization in Modeling Secondary Organic Aerosol Formation from Acid-Driven Reactive Uptake of Isoprene Epoxydiols Under Humid Conditions. *ACS ES&T Air*, 1 (6), 511-524.
19. Moschos, V.<sup>P\*</sup>; Christensen, C.<sup>S</sup>; Mouton, M.; Fiddler, M. N.; Isolabella, T.; Mazzei, F.; Massabo, D.; Turpin, B. J.; Bililign, S.\*; **Surratt J. D.\*** (2024) Quantifying the Light-Absorption Properties and Molecular Composition of Brown Carbon Aerosol from Sub-Saharan African Biomass Combustion. *Environmental Science and Technology*, 58 (9), 4268-4280.
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21. Khan, F.<sup>S</sup>; Chen, Y.<sup>S</sup>; Hartwell, H. J.; Yan, J.<sup>S</sup>; Lin, Y.-H.; Freedman, A.; Zhang, Z.; Zhang, Y.; Lambe, A. T.; Gold, A.; Ault, A. P.; Szmigielski, R.\*; Fry, R. C.\*; **Surratt, J. D.\*** (2023) Heterogeneous Oxidation Products of Fine Particulate Isoprene

- Epoxydiol-Derived Methyltetrol Sulfates Increase Oxidative Stress and Inflammatory Gene Responses in Human Lung Cells. *Chemical Research in Toxicology*, 36 (11), 1814 – 1825.
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  23. Plaas, H. E.\*; Yan, J.<sup>S</sup>; Christensen, C.<sup>S</sup>; Chang, S.; Cortez, C.; Fern, S.; Nelson, L.; Sabo, A.; Armstrong, N. C.<sup>S</sup>; Turpin, B. J.; Zhang, Y.; Paerl, H. W.; **Surratt, J. D.\*** (2023) Secondary Organic Aerosol Formation from Cyanobacterial-Derived Volatile Organic Compounds. *ACS Earth and Space Chemistry*, 7 (9), 1798–1813.
  24. Eichler, C. M.; Chang, N. Y.; Hubal, E. A. C.; Amparo, D. E.; Zhou, J.; **Surratt, J. D.**; Morrison, G. C.; Turpin, B. J.\* (2023) Cloth-Air Partitioning of Neutral Per- and Polyfluoroalkyl Substances (PFAS) in North Carolina Homes During the Indoor PFAS Assessment (IPA) Campaign. *Environmental Science & Technology*, 57 (40), 15173–15183.
  25. Zhang, J.\*; Liu, J.; Ding, X.; He, X.; Zhang, T.; Zheng, M.; Choi, M.; Isaacman-VanWertz, G.; Yee, L.; Zhang, H.; Misztal, P.; Goldstein, A. H.; Guenther, A. B.; Budisulistiorini, S. H.<sup>S</sup>; **Surratt, J. D.**; Stone, E. A.; Shrivastava, M.; Wu, D.; Yu, J. Z.; Ying, Q.\* (2023) New Formation and Fate of Isoprene SOA Molecular Markers Revealed by Field Data-Constrained Modeling. *NPJ Climate Change and Atmospheric Science*, 6, 69, <https://doi.org/10.1038/s41612-023-00394-3>.
  26. Frauenheim, M.<sup>S</sup>; **Surratt, J. D.**; Zhang, Z.; Gold., A.\* (2023) Technical Note: Improved Synthetic Routes to *Cis*- and *Trans*-(2-Methyloxirane-2,3-diyl)dimethanol (*Cis*- and *Trans*- $\beta$ -Isoprene Epoxydiol). *Atmospheric Chemistry and Physics*, 23 (14), 7859 – 7866.
  27. De Haan, D. O.\*; Hawkins, L. N.; Wickremasinghe, P. D.; Andretta, A.; Dignum, J. R.; De Haan, A. C.; Welsh, H. G.; Pennington, E.; Cui, T.<sup>S</sup>; **Surratt, J. D.**; Cazaunau, M.; Pangui, E.; Doussin, J.-F. (2023) Brown Carbon from Photo-Oxidation of Glyoxal and SO<sub>2</sub> in Aqueous Aerosol. *ACS Earth and Space Chemistry*, 7 (5), 1131 – 1140.
  28. Webb, M.<sup>S</sup>; Cui, L.; Morrison, G.; Baumann, K.; **Surratt, J. D.**; Zhang, Z.; Atkin, J.; Turpin, B. J.\* (2023) The Fate of Organic Peroxides Indoors: Quantifying Humidity-Dependent Uptake on Naturally Soiled Indoor Window Glass. *Environmental Science: Processes and Impacts*, 25 (6), 1031 – 1048.
  29. Chen, B.; Mirrieless, J. A.; Chen, Y.<sup>S</sup>; Onasch, T. B.; Zhang, Z.; Gold, A.; **Surratt, J. D.**; Zhang, Y.; Brooks, S. D.\* (2023) Glass Transition Temperatures of Organic Mixtures from Isoprene Epoxydiol (IEPOX)-Derived Secondary Organic Aerosol. *Journal of Physical Chemistry A*, 127 (18), 4125–4136.
  30. Zhang, J.; Shrivastava, M.\*; Zelenyuk, A.; Zaveri, R. A.; **Surratt, J. D.**; Riva, M.<sup>P</sup>; Bell, D.; Glasius, M. (2023) Observationally Constrained Modeling of the Reactive Uptake

- of Isoprene-derived Epoxydiols under High Humidity and Varying Acidity of Seed Aerosol Conditions. *ACS Earth and Space Chemistry*, 7 (4), 788–799.
31. Armstrong, N. C.<sup>S</sup>; Chen, Y.<sup>S</sup>; Cui, T.<sup>S</sup>; Zhang, Y.<sup>P</sup>; Christensen, C.; Zhang, Z.; Turpin, B. J.; Chan, M. N.; Gold, A.; Ault, A. P.\*; **Surratt, J. D.\*** (2022) Isoprene Epoxydiol-Derived Sulfate and Non-Sulfated Oligomers Suppress Particulate Mass Loss During Oxidative Aging of Secondary Organic Aerosol, *Environmental Science and Technology*, 56 (23), 16611–16620.
  32. Zhou, J.<sup>P</sup>; Baumann, K.; **Surratt, J. D.\***; Turpin, B. J.\* (2022) Legacy and Emerging Airborne Per- and Polyfluoroalkyl Substances (PFAS) Collected on PM<sub>2.5</sub> Filters in Close Proximity to a Fluoropolymer Manufacturing Facility, *Environmental Science: Processes and Impacts*, 24 (12), 2272–2283.
  33. Cooke, M. E.; Armstrong, N. C.<sup>S</sup>; Lei, Z.; Chen, Y.<sup>S</sup>; Waters, C. M.; Zhang, Y.<sup>P</sup>; Buchenau, N. A.<sup>S</sup>; Dibley, M. Q.; Ledsky, I. R.; Szalkowski, T.; Lee, J. Y.; Baumann, K.; Zhang, Z.; Vizuete, W.; Gold, A.; **Surratt, J. D.\***; Ault, A. P.\* (2022) Organosulfate Formation in Proxies for Aged Sea Spray Aerosol: Reactive Uptake of Isoprene Epoxydiols to Acidic Sodium Sulfate, *ACS Earth and Space Chemistry*, 6 (12), 2790–2800.
  34. Frauenheim, M.<sup>S</sup>; Offenber, J.; Zhang, Z.; **Surratt, J. D.**; Gold, A.\* (2022) The C<sub>5</sub>-Alkene Triol Conundrum: Structural Characterization and Quantitation of Isoprene-Derived C<sub>5</sub>H<sub>10</sub>O<sub>3</sub> Reactive Uptake Products. *Environmental Science and Technology Letters*, 9 (10), 829–836.
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  36. Karlsson, E. E.; Hu, J-H.; Davern, M. J.<sup>S</sup>; Cong, Y.; Jin, Y.<sup>S</sup>; **Surratt, J. D.**; Zhukhovitskiy, A. V. (2022) Development of Bioderived Alternatives to N95 Facemasks in A Remote Course-Based Undergraduate Research Experience, *Journal of Chemical Education*, 99 (9), 3196–3202.
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41. Zhou, J.<sup>P</sup>; Baumann, K.; Chang, N.; Morrison, G.; Bodnar, W.; Zhang, Z.; Atkin, J. M.; **Surratt, J.D.\***; Turpin, B. J.\* (2022) Per- and Polyfluoroalkyl Substances (PFASs) in Airborne Particulate Matter (PM<sub>2.0</sub>) Emitted During Floor Waxing: A Pilot Study. *Atmospheric Environment*, 268, 118845.
42. Octaviani, M.; Shrivastava, M.\*; Zaveri, R. A.; Zelenyuk, A.; Zhang, Y.<sup>P</sup>; Rasool, Q. Z.; Bell, D. M.; Riva, M.<sup>P</sup>; Glasius, M.; **Surratt, J. D.** (2021) Modeling the Size Distribution and Chemical Composition of Secondary Organic Aerosols during the Reactive Uptake of Isoprene-Derived Epoxydiols Under Low-Humidity Condition. *ACS Earth and Space Chemistry*, 5 (11), 3247–3257.
43. Chen, Y.<sup>S</sup>; Dombek, T.; Hand, J.; Zhang, Z.; Gold, A.; Levine, K. E.\*; **Surratt, J. D.\*** (2021) Seasonal Contribution of Isoprene-Derived Organosulfates to Total Water-Soluble Fine Particulate Sulfur in the United States, *ACS Earth and Space Chemistry*, 5 (9), 2419–2432.
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**Refereed Journal Articles - Under Review and to be Submitted Status (11 Total)**

1. Christensen, C. M.<sup>S</sup>; Reed, N. W.; Wing, B. A.; McGlynn, S. E.; Tolbert, M. A.; Browne, E. C.\*; **Surratt, J. D.\*** (2024) Chemical Characterization of Organosulfur Compounds in Aerosols from Archean Analog Photochemistry: Insights from Liquid Chromatography and High-Resolution Tandem Mass Spectrometry. *ACS Earth and Space Chemistry*, under review (46 pages).

- Zhang, Y.<sup>P</sup>; Yan, J.<sup>S</sup>; Bucheanu, N. A.<sup>S</sup>; Canagaratna, M.; Armstrong, N. C.<sup>S</sup>; McCombs, M.; Fennell, T.; Mishina, E. V.; Reilly, S. M.; Ferlito, M.; Peters, K. O.; Thornburg, J.\*; **Surratt, J. D.\*** (2024) Real-Time Chemical Characterization of Electronic Nicotine Delivery System Aerosols as a Function of E-Liquid Humectant Composition and Power. *Environmental Science: Processes and Impacts*, under review (21 pages).
- Olin, M.; Niu, S.; LeClear, H.; Zhao, J.; Cziczo, D. J.; **Surratt, J. D.**; Zhang, Y.\* (2024) Controlled Particle Growth from B-Caryophyllene Photo-Oxidation in an Environmental Chamber Employing LED UV-C Lights. *Aerosol Science & Technology*, under review (24 pages).
- Zhao, J.; Gagan, S.; Frauenheim, M. P.<sup>S</sup>; Niu, S.; Aridjis-Olivos, B.; **Surratt, J. D.**; Zhang, Z.; Gold, A.; Zhang, R.\*; Zhang, Y.\* (2024) Constraining Gas Phase Yields and Reactive Uptake Coefficients of Oxidation Products from the Hydroxyl Radical-Isoprene Reaction onto Acidic Particles by Vocus Ammonia-Adduct Chemical Ionization Mass Spectrometry (Vocus NH<sub>4</sub><sup>+</sup> CIMS). *ACS ES&T Air*, under review (45 pages).
- Yan, J.<sup>S</sup>; Armstrong, C.<sup>S</sup>; Kolozsvari, K.; Waters, C.; Xiao, Y.; Fankhauser, A. M.; Cooke, M. E.; Frauenheim, M.<sup>S</sup>; Buchenau, N. A.<sup>S</sup>; Parham, R.; Zhang, Z.; Turpin, B. J.; Lambe, A. T.; Gold, A.; Ault, A. P.\*; **Surratt, J. D.\*** (2024) Effect of Aerosol Acidity on the Kinetics and Products of Heterogeneous Hydroxy Radical Oxidation of Isoprene Epoxydiol-Derived Secondary Organic Aerosol. *Journal of Physical Chemistry A*, under review (29 pages).
- Davern, M. J.<sup>S</sup>; Hu, Y.<sup>S</sup>; West, G. V.<sup>S</sup>; Kim, Y.; Morrison, G. C.; Turpin, B. J.; Zhang, Y.; **Surratt, J. D.\*** (2024) Online Iodide Chemical Ionization Mass Spectrometry (I-CIMS) Enable Occupational Inhalation Exposure Assessment of 6:2 Fluorotelomer Alcohol (6:2 FTOH) During Floor Waxing. *Environmental Science and Technology Letters*, to be submitted (17 pages).
- Yan, J.<sup>S</sup>; Zhang, Y.<sup>P</sup>; Buchenau, N. A.<sup>S</sup>; Canagaratna, M.; Armstrong, N. C.<sup>S</sup>; McCombs, M.; Fennell, T.; Mishina, E. V.; Reilly, S. M.; Ferlito, M.; Peters, K. O.; Thornburg, J.\*; **Surratt, J. D.\*** (2024) Identification and Quantification of Aerosolized Oligomers as Potential Exposure Tracers to Electronic Nicotine Delivery Systems (ENDS) Use. *Environmental Science: Processes and Impacts*, to be submitted.
- Zhang, Y.<sup>P</sup>; Yan, J.<sup>S</sup>; Chen, Y.<sup>S</sup>; Armstrong, N. C.<sup>S</sup>; Zhang, Z.; Turpin, B. J.; Ault, A. P.; Gold, A.\*; **Surratt, J. D.\*** (2024) Rapid Formation of Secondary Sulfate and Organic Aerosols through Dark Reactive Uptake of Gaseous Isoprene Hydroxy Hydroperoxides (ISOPOOHs) and Sulfur Dioxide into Acidic Sulfate Particles. *Environmental Science and Technology Letters*, to be submitted (26 pages).
- Rattanavaraha, W.<sup>S</sup>; Canagaratna, M. R.; Budisulistiorini, S. H.<sup>P</sup>; Croteau, P. L.; Baumann, K.; Edgerton, E. S.; Zhang, Z.; Jayne, J. T.; Worsnop, D. R.; Gold, A.; Shaw, S. L.; **Surratt, J. D.\*** (2024) Source Apportionment of Submicron Organic Aerosol Collected from Centreville, Alabama, During 2015-2016 Using the Aerosol Chemical Speciation Monitor (ACSM). *Atmospheres*, to be submitted (37 pages).

10. Tomaz, S.<sup>P</sup>; Petters, S. S.<sup>P</sup>; **Surratt, J. D.\***; Turpin, B. J.\* (2024) Furan-like Molecules Emitted by Biomass Burns: A Potential Source of Aqueous Secondary Organic Aerosol, *Environmental Science & Technology*, to be submitted (22 pages).
11. Cui, T.<sup>S</sup>; Tomaz, S.<sup>P</sup>; Tarun-Chenna, S.; Zhenyu, T.; Li, H.; Selimovic, V.; Chen, Y.<sup>S</sup>; Sexton, K. G., May, A. A.; Cappa, C. D.; Kroll, J. H.; Roberts, J. M.; Warneke, C.; de Gouw, J.; Yokelson, R. J.; Jathar, S.; Turpin, B. J.\*; **Surratt, J. D.\*** (2024) Chemical Composition of Brown Carbon Aerosol from Primary and Photochemically-Aged Laboratory-Simulated Western U.S. Wildfire Emissions, *ACS Earth and Space Chemistry*, to be submitted (39 pages).

**Invited Oral Presentations (45 Total, \* = presenter)**

1. **Surratt, J. D.\*** (2022) *Heterogeneous Oxidation of Isoprene Epoxydiol-Derived Secondary Organic Aerosol: Products, Kinetics, Role of Oligomers and Potential Implications*. Keynote Speaker in Aerosol Chemistry at the Asian Aerosol Conference (AAC). June 14.
2. **Surratt, J. D.\*** (2022) *Heterogeneous Oxidation of Isoprene Epoxydiol-Derived Secondary Organic Aerosol: Products, Kinetics, Role of Oligomers and Potential Implications*. Molecular Understanding of Atmospheric Aerosols (MUOAA). May 18.
3. **Surratt, J. D.\*** (2021) *Characterizing the Effects of Aerosol Sulfate, Phase State and Aging on Secondary Organic Aerosol Formation from the Multiphase Chemistry of Isoprene Epoxydiols (IEPOX)*. Polish Academy of Sciences, Institute of Physical Chemistry. March 11.
4. **Surratt, J. D.\*** (2020) *Characterizing the Effects of Sulfate, Aerosol Phase State and Aging on Secondary Organic Aerosol Formation from the Multiphase Chemistry of Isoprene Epoxydiols (IEPOX)*. University of California – San Diego, Department of Chemistry. January 7.
5. **Surratt, J. D.\*** (2018) *Extensive Isoprene Epoxydiol (IEPOX) Conversion of Inorganic to Organic Sulfur Alters Aerosol Properties*. American Geophysical Union (AGU). Invited Speaker at Laboratory Studies in Atmospheric Sciences II. Washington, D.C. December 13.
6. **Surratt, J. D.\*** (2018) *Effects of Sulfate and Aerosol Phase State on the Acid-Catalyzed Multiphase Chemistry of Isoprene Epoxydiols Leading to Secondary Organic Aerosol Formation*. US EPA. Research Triangle Park, NC. October 31.
7. **Surratt, J. D.\*** (2018) *Acid-Catalyzed Multiphase Chemistry of Isoprene Epoxydiols*. Telluride Science Research Center (TSRC) Meeting entitled, "Organic Particles in the Atmosphere: Formation, Properties, Processing, and Impact." Telluride, CO USA. July 25.
8. **Surratt, J. D.\*** (2017) *Multiphase Chemistry of Isoprene-Derived Oxidation Products Leads to Secondary Organic Aerosol Formation*. University of Manchester. Manchester, United Kingdom. September 7.

9. **Surratt, J. D.\*** (2017) *Multiphase Chemistry of Isoprene-Derived Oxidation Products Leads to Secondary Organic Aerosol Formation*. University of York. York, United Kingdom. September 6.
10. **Surratt, J. D.\*** (2017) *Multiphase Chemistry of Isoprene-Derived Oxidation Products Leads to Secondary Organic Aerosol Formation: Implications for Air Quality and Public Health*. University of Birmingham. Birmingham, United Kingdom. September 4.
11. **Surratt, J. D.\*** (2017) *Multiphase Chemistry of Isoprene-Derived Oxidation Products Leads to Secondary Organic Aerosol Formation*. American Chemical Society (ACS). Invited Speaker for Multiphase Chemistry Symposium – Aerosol Chemistry. Washington, D.C. USA. August 22.
12. **Surratt, J. D.\*** (2017) *Secondary Organic Aerosol Formation from the Atmospheric Oxidation of Isoprene: Implications for Air Quality, Climate and Public Health*. Analytical and Environmental Chemistry Seminar. University of Colorado, Boulder. Boulder, CO USA. March 6.
13. **Surratt, J. D.\*** (2017) *Secondary Organic Aerosol Formation from the Atmospheric Oxidation of Isoprene: Implications for Air Quality, Climate and Public Health in the Southeastern USA*. Institute for the Environment Seminar. University of North Carolina at Chapel Hill. Chapel Hill, NC USA. February 22.
14. **Surratt, J. D.\*** (2016) *Secondary Organic Aerosol Formation from the Atmospheric Oxidation of Isoprene: Implications for Air Quality, Climate and Public Health in the Southeastern US*. Berkeley Atmospheric Sciences Center (BASC) Seminar. University of California, Berkeley. Berkeley, CA USA. December 7.
15. **Surratt, J. D.\*** (2016) *Secondary Organic Aerosol Formation from the Atmospheric Oxidation of Isoprene: Implications for Air Quality, Climate and Public Health in the Southeastern US*. UNC's Ruth and Philip Hettleman Lecture for Artistic and Scholarly Achievement. Chapel Hill, NC USA. May 18.
16. **Surratt, J. D.\*** (2016) *Multiphase Chemistry Promotes Isoprene-Derived Secondary Organic Aerosol Formation: Implications for Air Quality, Climate and Public Health in the Southeastern USA*. Invited Plenary Lecture. Nordic Society for Aerosol Research (NOSA) Symposium. Aarhus University, Aarhus, Denmark. April 5.
17. **Surratt, J. D.\*** (2016) *Aerosol Characterization Tutorial: Organic Aerosols*. Nordic Society for Aerosol Research (NOSA) Symposium. Aarhus University, Aarhus, Denmark. April 3.
18. **Surratt, J. D.\*** (2016) *Multiphase Chemistry Promotes Isoprene-Derived Secondary Organic Aerosol Formation in the Southeastern USA*. ES&T @ 50: Award Winning Researchers, Past, Present and Future Session. James J. Morgan Early Career Award Lectureship. American Chemical Society (ACS). San Diego, CA USA. March 16.
19. **Surratt, J. D.\*** (2016) *Impacts of Anthropogenic Emissions in the Southeastern U.S. on Heterogeneous Chemistry of Isoprene-Derived Epoxides Leading to Secondary Organic Aerosol Formation*. U.S. EPA STAR Progress Review Meeting. Research Triangle Park, NC USA. March 14.

20. **Surratt, J. D.\*** (2016) *Secondary Organic Aerosol Formation from the Atmospheric Oxidation of Isoprene: Implications for Air Quality, Climate and Public Health in the Southeastern U.S.* Engineering and Applied Sciences, Harvard University, Boston, MA USA. January 29.
21. **Surratt, J. D.\*** (2015) *Multiphase Chemistry Promotes Isoprene-Derived Secondary Organic Aerosol Formation in the Southeastern United States.* Department of Physics, NC A&T State University. Greensboro, NC USA. November 16.
22. **Surratt, J. D.\*** (2015) *Multiphase Chemistry Promotes Isoprene-Derived Secondary Organic Aerosol Formation in the Southeastern United States.* Department of Chemistry, University of Toronto. Toronto, Canada. November 12.
23. **Surratt, J. D.\*** (2015) *Multiphase Chemistry Promotes Isoprene-Derived Secondary Organic Aerosol Formation.* Gordon Research Conference on Atmospheric Chemistry. Invited Speaker for the Organic Chemistry in the Particle Phase Session. Waterville Valley, NH USA. August 4.
24. **Surratt, J. D.\*** (2015) *Isoprene-Derived Secondary Organic Aerosol Formation Across Multiple Sites in the Southeastern U.S.: Implications for Air Quality and Human Health.* American Chemical Society (ACS). Invited Speaker for Atmospheric Chemistry: Transformations of Matter in the Troposphere Session. Denver, CO USA. March 25.
25. **Surratt, J. D.\*** (2015) *Secondary Organic Aerosol Formation from the Atmospheric Oxidation of Isoprene: Implications for Air Quality, Climate, and Human Health.* Department of Chemical and Environmental Engineering, Yale University. New Haven, CT USA. February 25.
26. **Surratt, J. D.\*** (2014) *Secondary Organic Aerosol from the Heterogeneous Chemistry of Isoprene-Derived Epoxides.* 13<sup>th</sup> International Global Atmospheric Chemistry (IGAC) Science Conference: Changing Chemistry in a Changing World. Invited Speaker for Atmospheric Chemistry Fundamentals Session. Natal, Brazil. September 23.
27. **Surratt, J. D.\*** (2014) *Secondary Organic Aerosol Production from Heterogeneous Chemistry of Isoprene-Derived Epoxides: Implications for Air Quality, Climate and Public Health.* Department of Chemical Engineering, Columbia University. New York, NY USA. September 8.
28. **Surratt, J. D.\*** (2014) *Anthropogenic Pollutants Enhance Secondary Organic Aerosol Production from the Heterogeneous Chemistry of Isoprene-Derived Epoxides: Implications for Air quality, Climate, and Public Health in the Southeastern U.S.* American Chemical Society (ACS). Environmental Interfaces in the Atmosphere: From Surface Chemistry to Air Quality, Climate, and Health Effects. San Francisco, CA USA. August 10.
29. **Surratt, J. D.\*** (2014) *SOA Formation from Isoprene-Derived Epoxides: Smog Chamber, Flow Tube, and Field Studies.* Telluride Science Research Center (TSRC) Meeting titled, "Organic Particles in the Atmosphere: Formation, Properties, Processing, and Impact." Telluride, CO USA. August 1.

30. **Surratt, J. D.\*** (2014) *Overview of Look Rock Mountain, TN, Ground Site During SOAS 2013 Campaign*. Southeast Atmosphere Study (SAS) Data Meeting. Boulder, CO USA. March 31.
31. **Surratt, J. D.\*** (2013) *Impacts of Anthropogenic Emissions in the Southeastern U.S. on Heterogeneous Chemistry of Isoprene-Derived Epoxides Leading to Secondary Organic Aerosol Formation*. American Geophysical Union (AGU) Meeting - Molecular Chemistry and Physicochemical Properties of Organic Aerosols, Session 2. San Francisco, CA USA. December 11.
32. **Surratt, J. D.\*** (2013) *Secondary Organic Aerosol Formation from Photochemical Oxidation of Isoprene: Role of Epoxides*. Department of Chemistry, University of North Carolina at Wilmington (UNCW). Wilmington, NC USA. April 26.
33. **Surratt, J. D.\*** (2013) *An Overview of Isoprene Chemistry and Secondary Organic Aerosol Formation*. European Science Foundation (ESF) Strategic Workshop on The Molecular Identification of Organic Compounds in the Atmosphere. The University of Cambridge. Cambridge, United Kingdom. March 27.
34. **Surratt, J. D.\*** (2012) *Secondary Organic Aerosol Formation from Isoprene Oxidation: Role of Epoxides*. Atmospheric Chemical Mechanisms (ACM) Meeting. University of California, Davis. Davis, CA USA. December 10.
35. **Surratt, J. D.\*** (2012) *Impacts of Anthropogenic Emissions in the S.E. USA on Heterogeneous Chemistry of Isoprene-Derived Epoxides Leading to Secondary Organic Aerosol (SOA) Formation*. The Southeastern Regional Meeting of the American Chemical Society - Atmospheric Chemistry: Gas-Particle Interactions and Climate Session 1. Raleigh, NC USA. November 16.
36. **Surratt, J. D.\*** (2012) *Secondary Organic Aerosol Formation from Isoprene Oxidation: Role of Epoxides*. Department of Chemistry, Colorado State University. Fort Collins, CO USA. September 26.
37. **Surratt, J. D.\*** (2012) *The Chemistry of Isoprene and Terpenes*. American Chemical Society (ACS). Kinetics and Mechanism in the Earth's Atmosphere Symposium. Philadelphia, PA USA. August 20.
38. **Surratt, J. D.\*** (2012) *The Chemistry of Isoprene SOA Formation*. Telluride Science Research Center (TSRC) Meeting on Organic Particles in the Atmosphere: Formation, Properties, Processing, and Impact. Telluride, CO USA. August 1.
39. **Surratt, J. D.\***; Lin, Y.-H.<sup>S</sup>; Zhang, Z.; Docherty, K. S.; Zhang, H.<sup>S</sup>; Budisulistiorini, S. H.<sup>S</sup>; Rubitschun, C. L.<sup>S</sup>; Shaw, S. L.; Knipping, E. M.; Edgerton, E. S.; Kleindienst, T. E.; Gold, A. (2011) *Isoprene Epoxydiols as Precursors to Secondary Organic Aerosol Formation: Acid Catalyzed Reactive Uptake Studies with Authentic Standards*. American Geophysical Union (AGU). Formation and Properties of Organic Aerosols IV: SOA Formation Mechanisms Section. San Francisco, CA USA. December 6.
40. **Surratt, J. D.\*** (2011) *SOA Formation from the Photooxidation of Isoprene: Effects of NO<sub>x</sub>, Aerosol Acidity, and Relative Humidity*. Atmospheric Chemistry Colloquium for

Emerging Senior Scientists (ACCESS). Brookhaven National Laboratory. Upton, NY USA. July 23.

41. **Surratt, J. D.\*** (2011) *Effect of NO<sub>x</sub> and Aerosol Acidity on Biogenic SOA Formation*. Southern Oxidant and Aerosol Study (SOAS) Planning Workshop. Rutgers University. New Brunswick, NJ USA. May 26.
42. **Surratt, J. D.\*** (2011) *Secondary Organic Aerosol (SOA) Formation from the Photooxidation of Isoprene: Effect of NO<sub>x</sub>, Aerosol Acidity, and RH*. Environmental Protection Agency. Research Triangle Park, NC USA. March 30.
43. **Surratt, J. D.\***; Chan, A. W. H.; Kautzman, K. E.; Chhabra, P. S.; Galloway, M. M.; Chan, M. N.; Crouse, J. D.; Kurten, A.; Wennberg, P. O.; Keutsch, K. N.; Flagan, R. C.; Seinfeld, J. H. (2009) *Recent Results on Secondary Organic Aerosol Formation at Caltech: Photooxidation of Polycyclic Aromatic Hydrocarbons (PAHs) and Reactive Uptake of Glyoxal*. European Science Foundation (ESF) Sponsored Interdisciplinary Tropospheric Research (INTROP) Final Conference. Aerosols and Global Change Session. Portoroz, Slovenia. April 14.
44. **Surratt, J. D.\*** (2009) *Chemical Characterization of Organic Aerosol: Sources and Formation Mechanisms*. University of California, San Diego. San Diego, CA USA. February 9.
45. **Surratt, J. D.\***; Gómez-González, Y.; Chan, A. W. H.; Vermeylen, R.; Shahgholi, M.; Claeys, M.; Flagan, R. C.; Seinfeld, J. H. (2007) *Investigation of Organosulfate Formation in Biogenic Secondary Organic Aerosol*. Biogenic Volatile Organic Compounds: Sources and Fates in a Changing World International Science Meeting. Montpellier, France. October 4.

**Conference Oral Presentations (62 Total, S = graduate student, U= undergraduate student, P = postdoctoral scholar, \* = speaker)**

1. Kolozsvari, K.\*; Waters, C.; Fankhauser, A.; Armstrong, N. C.; Yan, J.; Cooke, M.; Xiao, Y.; Parham, R.; Zhang, Z.; Gold, A.; **Surratt, J. D.**; Ault, A. P. (2023) *Direct Determination of Melting Temperatures for Individual, Sub-Micron Isoprene Epoxydiol-Derived Secondary Organic Aerosol Particles*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 3.
2. Ng, N. L.\*; Dillner, A.; Bahreini, R.; Russell, A. G.; Fankhauser, A.; Flagan, R.; Flynn, J.; Gentner, D.; Griffin, R.; Hawkins, L.; Jimenez, J-L.; Mao, J.; Murphy, S.; Presto, A.; Raffuse, S.; Robinson, A.; Seinfeld, J.; Surratt, J. D.; Thornton, J. A.; Zhou, S. (2023) *Atmospheric Science and Chemistry mEasurement NeTwork (ASCENT): Advanced, Ground-based Aerosol Measurement Network Across the U.S.* Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 3.
3. Ng, A.\*; Chen, Y.; Green, J.; Surratt, J. D.; Zhang, H.; Vizuete, W. (2023) *Evaluation of Regional-Scale Model Parameters in the Prediction of Isoprene Epoxydiol (IEPOX)-Derived Secondary Organic Aerosols (SOA) Generated during Laboratory Chamber Experiments*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 4.

4. Lambert, A.\*; Christensen, C.; Moschos, V.; Mouton, M.; James, M.; Fiddler, M.; Turpin, B. J.; Bililign, S.; Surratt, J. D. (2023) *Assessing the Impact of Atmospheric Photochemical Aging on Organic Aerosol Tracers Derived From Burning African Biomass Relevant to Botswana*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 4.
5. Niu, S.\*; Rapp, C.; Kim, Y.; Cheng, Z.; Vandergrift, G. W.; Surratt, J. D.; Kulkarni, G.; Cziczo, D.; Zelenyuk, A.; China, S.; Zhang, Y. (2023) *The Effects of Acid-Catalyzed Multiphase Chemistry on the Hygroscopicity and Deposition Ice Nucleation of Complex Inorganic-Organic Mixed Aerosols*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 4.
6. Eichler, C.\*; Chang, N.; Zhou, J.; Amparo, D.; Hubal, E. C.; Surratt, J. D.; Morrison, G.; Turpin, B. J. (2023) *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*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 4.
7. Moschos, V.\*; Christensen, C.; Fiddler, M.; Turpin, B. J.; Bililign, S.; Surratt, J. D. (2023) *Unraveling the Link between Real-Time Light-Absorption Properties and Offline Molecular Composition of Brown Carbon Aerosol*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 4.
8. Mouton, M.\*; Moschos, V.; Fiddler, M.; Gorkowski, K.; Md Shawon, A. S.; Franco, N.; Benedict, K.; Turpin, B. J.; Surratt, J. D.; Dubey, M.; Bililign, S. (2023) *Initial Findings of the African Combustion Aerosol Collaborative Intercomparison Analysis (ACACIA) Pilot Project*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 4.
9. Rice, R.\*; Surratt, J. D.; Zhang, Z.; Gold, A. (2023) *HPALD2 is a Peroxyhemiacetal and a Source of SOA*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 5.
10. Frauenheim, M.\*; Surratt, J. D.; Zhang, Z.; Gold, A. (2023) *Chemical Composition of Secondary Organic Aerosol Formed from the Oxidation of Isoprene-Derived C<sub>5</sub>H<sub>10</sub>O<sub>3</sub> Reactive Uptake Products*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 5.
11. Cooke, M.; Armstrong, N. C.; Fankhauser, A.; Chen, Y.; Lei, Z.; Zhang, Y.; Ledsky, I.; Turpin, B. J.; Zhang, Z.; Gold, A.; McNeill, V. F.; Surratt, J. D.; Ault, A. P.\* (2023) *Decreases in Epoxide-Driven Secondary Organic Aerosol Production under Highly Acidic Conditions: The Importance of Acid-Base Equilibria*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 5.
12. Waters, C.\*; Kolozsvari, K.; Yan, J.; Cooke, M.; Fankhauser, A.; Armstrong, N. C.; Parham, R.; Xiao, Y.; Poworoznek, C.; Zhang, Z.; Gold, A.; Surratt, J. D.; Ault, A. P. *Investigating the Heterogeneous Formation and Degradation of Oligomers in Isoprene Epoxydiol-Derived Secondary Organic Aerosol*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 5.



13. **Surratt, J. D.\*** (2022) *Multiphase Aerosol Chemistry Tutorial – Effects on Aerosol Formation/Evolution and Physicochemical Properties*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 3.
14. Ng, N L.\*; Dillner, A.; Bahreini, R.; Russell, A. G.; de La Beaujardiere, J.; Flynn, J.; Gentner, D.; Griffin, R.; Hawkins, L.; Jimenez, J.-L.; Mao, J.; Murphy, S.; Nienhouse, E.; Presto, A.; Raffuse; Robinson, A.; Seinfeld, J. H.; **Surratt, J. D.**; Thornton, J. A.; Thrasher, B. (2022) *Atmospheric Science and Chemistry mEasurement NeTwork (ASCENT): A New Ground-based High Time-Resolution Air Quality Monitoring Network*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 4.
15. Niu, S.\*; Liu, R.; Gagan, S.; Buchenau, N. A.<sup>S</sup>; Brooks, S.; **Surratt, J. D.**; Ma, X.; Canagaratna, M.; Zhang, Y. (2022) *Quantifying the Chemical Composition and Mass Loading of Microplastic Submicron Particles (MPPs) in the Atmosphere using Real-Time Aerosol Mass Spectrometry*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 4.
16. Fankhauser, A.\*; Cooke, M.; Yan, J.<sup>S</sup>; Waters, C.; Parham, R.; Armstrong, N. C.<sup>S</sup>; Xiao, Y.; Kolozsvari, K.; Zhang, Z.; Gold, A.; **Surratt, J. D.**; Ault, A. P. (2022) *Relative Humidity Effects the Oxidative Aging of Isoprene Epoxydiol-Derived Secondary Organic Aerosol*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 5.
17. Green, J.\*<sup>P</sup>; Chen, Y.<sup>S</sup>; **Surratt, J. D.**; Vizuete, W. (2022) *Estimates of IEPOX Based SOA Formation in CMAQ 5.3.2 Using Updated Kinetics and Thermodynamics*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 5.
18. Eichler, C.<sup>S\*</sup>; Chang, N.<sup>S</sup>; Hubal, E. C.; Zhou, Z.<sup>P</sup>; **Surratt, J. D.**; Morrison, G.; Turpin, B. J. (2022) *Profiles of Neutral, Volatile Per- and Polyfluoroalkyl Substances (PFAS) in Residential Indoor Air and Particle Samples from the Indoor PFAS Assessment Campaign*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 5.
19. Frauenheim, M.<sup>S\*</sup>; Beaver, M.; Offenber, J. H.; Zhang, Z.; **Surratt, J. D.**, Gold, A. (2022) *Insights into the Alkene Triol Conundrum: Characterization and Quantitation of Isoprene-Derived C<sub>5</sub>H<sub>10</sub>O<sub>3</sub> Reactive Uptake Products*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 6.
20. Cooke, M.\*; Lei, Z.; Chen, Y.<sup>S</sup>; Armstrong, N. C.<sup>S</sup>; Zhang, Y.; Buchenau, N. A.<sup>S</sup>; Ledsky, I.; Lee, J.; Gold, A.; Zhang, Z.; **Surratt, J. D.**; Ault, A. P. (2022) *Organosulfate Formation in Proxies for Aged Sea Spray Aerosol: Reactive Uptake of Isoprene Epoxydiols to Acidic Sodium Sulfate*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 6.
21. Armostrong, N. C.<sup>S\*</sup>; Chen, Y.<sup>S</sup>; Cui, T.<sup>S</sup>; Zhang, Y.; Zhang, Z.; Turpin, B. J.; Chan, M. N.; Gold, A.; Ault, A. P.; **Surratt, J. D.** (2022) *Isoprene Epoxydiol-Derived Sulfated and Non-Sulfated Oligomers Suppress Particulate Mass Loss During Oxidative Aging of*

- Secondary Organic Aerosol*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 6.
22. Ault, A. P.\*; Lei, Z.; Olson, N.; Zhang, Y.<sup>P</sup>; Chen, Y.<sup>S</sup>; Lambe, A.; Zhang, J.; White, N.; Atkin, J.; Holl, M. B.; Zhang, Z.; Gold, A.; **Surratt, J. D.** (2021) *Morphology and Viscosity Changes after Reactive Uptake of Isoprene Epoxydiols in Submicrometer Phase Separated Particles with Secondary Organic Aerosol Formed from Different Volatile Organic Compounds*. Presented at: 39<sup>th</sup> Annual Conference of the American Association for Aerosol Research, October 18-22.
  23. Chen, Y.<sup>S</sup>\*; Dombek, T.; Hand, J.; Zhang, Z.; Gold, A.; Ault, A.; Levine, K.; **Surratt, J. D.** (2021) *Seasonal Contribution of Isoprene-Derived Organosulfates to Total Water-Soluble Fine Particulate Organic Sulfur in the United States*. Presented at: 39<sup>th</sup> Annual Conference of the American Association for Aerosol Research, October 18-22.
  24. Yan, J.<sup>S</sup>\*; Zhang, Y.<sup>P</sup>; Chen, Y.<sup>S</sup>; Armstrong, N. C.<sup>S</sup>; Zhang, Z.; Gold, A.; Lambe, A.; Turpin, B. J.; Ault, A. P.; **Surratt, J. D.** (2021) *Kinetics and Products of Heterogeneous Hydroxyl Radical Oxidation of Isoprene-Derived SOA*. Presented at: 39<sup>th</sup> Annual Conference of the American Association for Aerosol Research, October 18-22.
  25. Lei, Z.\*; Chen, Y.<sup>S</sup>; Zhang, Y.<sup>P</sup>; Cooke, M.; Ledsky, I.; Armstrong, N. C.<sup>S</sup>; Olson, N.; Zhang, Z.; Gold, A.; **Surratt, J. D.**; Ault, A. P. (2021) *Initial pH Governs Secondary Organic Aerosol Viscosity and Morphology after Uptake of Isoprene Epoxydiols (IEPOX)*. Presented at: 39<sup>th</sup> Annual Conference of the American Association for Aerosol Research, October 18-22.
  26. Petters, S. S.<sup>P</sup>\*; Cui, T.<sup>S</sup>; Zhang, Z.; Gold, A.; McNeill, V. F.; **Surratt J. D.**; Turpin, B. J. (2021) *Effect of Solution Activity on Regioselectivity of Sulfate Addition in Acid-Catalyzed Aqueous Reactions of IEPOX*. Presented at: 39<sup>th</sup> Annual Conference of the American Association for Aerosol Research, October 18-22.
  27. Eichler, C.<sup>S</sup>\*; Chang, N.<sup>S</sup>; Zhou, J.<sup>P</sup>; Morrison, G.; **Surratt, J. D.**; Turpin, B. J. (2021) *Sampling of Per- and Polyfluoroalkyl Substances (PFAS) with Residential Air Filters*. Presented at: 39<sup>th</sup> Annual Conference of the American Association for Aerosol Research, October 18-22.
  28. Webb, M.<sup>S</sup>\*; Cui, L.<sup>S</sup>; Baumann, K.; **Surratt, J. D.**; Morrison, G.; Atkin, J.; Turpin, B. J. (2021) *Humidity and the Uptake of a Model Organic Peroxide on Naturally Soiled Indoor Window Surfaces*. Presented at: 39<sup>th</sup> Annual Conference of the American Association for Aerosol Research, October 18-22.
  29. Zhou, J.<sup>P</sup>\*; Baumann, K.; Mead, R.; Skrabal, S.; Kieber, R.; Avery, G.; Shimizu, M.; Sun, M.; Vance, S.; Bodnar, W.; Zhang, Z.; Collins, L.; **Surratt, J. D.**; Turpin, B. J. (2021) *Regional and Nearfield Per- and Polyfluoroalkyl Substances (PFASs) in Ambient Fine Aerosol (PM<sub>2.5</sub>) in North Carolina, USA*. Presented at: 39<sup>th</sup> Annual Conference of the American Association for Aerosol Research, October 18-22.
  30. Fankhauser, A.\*; Lei, Z.; Daley, K.; Xiao, Y.; Zhang, Z.; Gold, A.; Ault, B.; **Surratt, J. D.**; Ault, A. P. (2021) *Organosulfates are Primarily Deprotonated at Atmospheric Aerosol Acidities: pH-Dependent Protonation State via Raman and Infrared Spectroscopy*.

Presented at: 39th Annual Conference of the American Association for Aerosol Research, October 18-22.

31. Zhang, Y.<sup>P,\*</sup>; Yan, J.<sup>S</sup>; Chen, Y.<sup>S</sup>; Armstrong, N. C.<sup>S</sup>; Zhang, Z.; Gold, A.; Turpin, B. J.; **Surratt, J. D.** (2021) *Synergistic Multiphase Chemistry of Isoprene Hydroxy Hydroperoxides (ISOPOOH) with Sulfur Dioxide in Acidic Sulfate Aerosols Leading to Secondary Inorganic and Organic Aerosol Formation*. Presented at: 39th Annual Conference of the American Association for Aerosol Research, October 18-22.
32. Armstrong, N. C.<sup>S,\*</sup>; Chen, Y.<sup>S</sup>; Cui, T.<sup>S</sup>; Zhang, Y.<sup>P</sup>; Yan, J.<sup>S</sup>; Zhang, Z.; Turpin, B.; Chan, M.N.; Ault, A.; Gold, A.; **Surratt, J. D.** (2020) *Heterogeneous Hydroxyl Radical Oxidation of Isoprene Epoxydiol (IEPOX)-Derived Secondary Organic Aerosol: Identification of Highly Oxygenated Products by HILIC/ESI-HR-QTOFMS*. Presented at: 38th Annual Conference of the American Association for Aerosol Research, October 5-9.
33. Zhou, J.<sup>P,\*</sup>; Baumann, K.; **Surratt, J. D.**; DeWitt, J. C.; Sun, M.; Mead, R.; Skrabal, S.; Kieber, R. J.; Avery, G. B.; Shimizu, M. S.; Bodnar, W.; Zhang, Z.; Collins, L. B.; Turpin, B. J. (2020) *Per- and Polyfluoroalkyl Substances (PFASs) in Fine Aerosols (PM<sub>2.5</sub>) in North Carolina*. Presented at the American Association for Aerosol Research (AAAR) 38th Annual Conference, October 5-9.
34. Zhou, J.<sup>P,\*</sup>; Baumann, K.; Chang, N.; **Surratt, J. D.**; Bodnar, W.; Zhang, Z.; Morrison, G.C.; Atkin, J.M.; Turpin, B.J. (2020) *Per- and Polyfluoroalkyl Substances (PFASs) in Fine aerosols (PM<sub>2.5</sub>) During Floor Waxing*. Presented at the American Association for Aerosol Research 38th Annual Conference, October 5-9.
35. Zhang, Y.<sup>P,\*</sup>; Chen, Y.<sup>S</sup>; Lambe, A. T.; Olson, N. E.; Lei, Z.; Zhang, Z.; Gold, A.; Jayne, J. Y.; Worsnop, D. R.; Onasch, T. B.; Ault, A. P.; Surratt J. D. (2020) *The Interconnection of Aerosol-Phase State and Chemical Composition Impact the Formation and Climate-Altering Properties of Isoprene-Derived Secondary Organic Aerosols*. American Association for Aerosol Research (AAAR) Annual Meeting, Online due to COVID, USA, October 5.
36. Zhang, Y.<sup>P,\*</sup>; Petters, S. S.<sup>P</sup>; Yan, J.<sup>S</sup>; Buchenau, N. A.<sup>S</sup>; Armstrong, N. C.<sup>S</sup>; McCombs M.; Fennell, T.; Mishina, E. V.; Peters, K. O.; Thornburg, J.; **Surratt J. D.** (2020) *Changing of Chemical Composition and Potential Exposure Risks of Aerosols from Electronic Nicotine Delivery Systems as a Function of E-Liquid Composition and Heating Power*. American Association for Aerosol Research (AAAR) Annual Meeting, Online due to COVID, USA, October 6.
37. Zhang, Y.<sup>P,\*</sup>, Yan, J.<sup>S</sup>, Chen, Y.<sup>S</sup>, Armstrong, N. C.<sup>S</sup>, Zhang, Z.; Gold, A.; Turpin, B. J.; **Surratt J. D.** (2020) *Rapid Formation of Sulfate Aerosols Through Aqueous Aerosol Oxidation by Isoprene Hydroxy Hydroperoxides (ISOPOOH)*. American Association for Aerosol Research (AAAR) Annual Meeting, Online due to COVID, USA, October 7.
38. Zhou, J.<sup>P,\*</sup>; Baumann, K.; Chang, N.; **Surratt, J. D.**; Bodnar, W.; Zhang, Z.; Morrison, G. C.; Atkin, J. M.; Turpin, B. J. (2020) *Per- and Polyfluoroalkyl Substances (PFASs) in Fine Particulate Matter (PM<sub>2.5</sub>) During Floor Waxing*. Presented at the International Society of Exposure Science 30th Annual Virtual Meeting, September 20-24.

39. Zhou, J.<sup>P\*</sup>; Baumann, K.; **Surratt, J. D.**; DeWitt, J. C.; Sun, M.; Mead, R.; Skrabal, S.; Kieber, R. J.; Avery, G. B.; Shimizu, M. S.; Bodnar, W.; Zhang, Z.; Collins, L. B.; Turpin, B. J. (2020) *Per- and Polyfluoroalkyl Substances (PFASs) in fine particular matters (PM<sub>2.5</sub>) in North Carolina*. Presented at the International Society of Exposure Science 30th Annual Virtual Meeting, September 20-24.
40. Zhou, J.<sup>P\*</sup>; Baumann, K.; **Surratt, J. D.**; DeWitt, J. C.; Sun, M.; Mead, R.; Skrabal, S.; Kieber, R. J.; Avery, G. B.; Shimizu, M. S.; Bodnar, W.; Zhang, Z.; Collins, L. B.; Turpin, B. J. (2020) *Air Concentrations of Per- and Polyfluoroalkyl Substances (PFASs) in North Carolina*. Presented at the PFAS Stakeholders Advisory Committee Meeting, July 1.
41. Chen, Y.<sup>S\*</sup>; Zhang, Y.<sup>P</sup>; Lambe, A. T.; Xu, R.; Zhang, Z.; Gold, A.; Turpin, B. J.; Ault, A. P.; **Surratt, J. D.** (2019) *Heterogeneous OH Oxidation of Methyltetrol Sulfates Leads to Formation of Multifunctional Organosulfates Previously Measured in Ambient Fine Aerosols*. American Geophysical Union (AGU) Annual Meeting. San Francisco, CA USA. December 13.
42. Cui, T.<sup>S\*</sup>; Selleck, P.; Lin, Y.-H.<sup>P</sup>; Boulanger, K.; O'Brien, R.; Zhang, Z.; Gold, A.; Keywood, M.; Kroll, J. H.; **Surratt, J. D.** (2015) *Organic Nitrogen and Carbon in Atmospheric Aerosols: Concentration, Chemical Composition, and Properties*. American Association for Aerosol Research (AAAR) Annual Meeting. Minneapolis, MN USA. October 16.
43. Budisulistiorini, S. H.<sup>P\*</sup>; McNeill, V. F.; Pye, H. O. T.; **Surratt, J. D.\*** (2015) *Understanding Aqueous-Phase Isoprene-Epoxydiol (IEPOX) Secondary Organic Aerosol (SOA) Production During SOAS 2013*. American Association for Aerosol Research (AAAR) Annual Meeting. Minneapolis, MN USA. October 15.
44. Rattanavaraha, W.<sup>S\*</sup>; Budisulistiorini, S. H.<sup>P</sup>; Croteau, P.; Baumann, K.; Edgerton, E. S.; Canagaratna, M.; Jayne, J.; Worsnop, D.; Shaw, S. L.; **Surratt, J. D.** (2015) *Chemical Characterization of Atmospheric Fine Aerosol Collected from Atlanta, GA and Centerville, AL Using the Aerodyne Aerosol Chemical Speciation Monitor*. American Association for Aerosol Research (AAAR) Annual Meeting. Minneapolis, MN USA. October 15.
45. Riva, M.<sup>P\*</sup>; Cui, T.<sup>S</sup>; Gold, A.; **Surratt, J. D.** (2015) *Evidence for Unrecognized Anthropogenic Sources of Organosulfates: Gas-Phase Oxidation of Anthropogenic Precursors in the Presence of Sulfate Aerosol*. American Association for Aerosol Research (AAAR) Annual Meeting. Minneapolis, MN USA. October 15.
46. Riedel, T. P.<sup>P</sup>; Chu, K.<sup>S</sup>; Cui, T.<sup>S</sup>; Lin, Y.-H.<sup>P</sup>; Budisulistiorini, S. H.<sup>P</sup>; Zhang, Z.; Thornton, J. A.; Gold, A.; **Surratt, J. D.\*** (2015) *Constraining Condensed-Phase Kinetics of Secondary Organic Aerosol Components from Isoprene Epoxydiols*. American Association for Aerosol Research (AAAR) Annual Meeting. Minneapolis, MN USA. October 13.
47. Lin, Y.-H.<sup>P</sup>; Kramer, A.<sup>U</sup>; Arashiro, M.<sup>S</sup>; Rattanavaraha, W.<sup>S</sup>; Martin, E.; Zhang, Z.; Sexton, K. G.; Gold, A.; Jaspers, I.; Fry, R. C.; **Surratt, J. D.\*** (2015) *Isoprene-derived*

- Secondary Organic Aerosol Induces Expression of Nuclear Factor Erythroid 2-like 2 (NRF2)-mediated Oxidative Stress Response Genes in Human Lung Cells.* American Association for Aerosol Research (AAAR) Annual Meeting. Minneapolis, MN USA. October 13.
48. Budisulistiorini, S. H.<sup>S\*</sup>; Li, X.<sup>S</sup>; Croteau, P.; Canagaratna, M.; Bairai, S.; Tanner, R.; Shaw, S. L.; Knipping, E. M.; Jayne, J.; Zhang, Z.; Gold, A.; **Surratt, J. D.** (2014) *Seasonal Characterization of Atmospheric Organic Aerosol at the Look Rock Site, Great Smoky Mountains National Park during 2013 Using the Aerodyne Aerosol Chemical Speciation Monitor (ACSM).* American Association for Aerosol Research (AAAR) Annual Meeting. Orlando, FL USA. October 22.
49. Riedel, T. P.<sup>P\*</sup>; Gaston, C.; Budisulistiorini, S. H.<sup>S</sup>; Lin, Y.-H.<sup>P,S</sup>; Zhang, Z.; Gold, A.; Thornton, J. A.; **Surratt, J. D.** (2014) *Heterogeneous Reaction Kinetics of Isoprene-Derived Epoxides.* American Association for Aerosol Research (AAAR) Annual Meeting. Orlando, FL USA. October 22.
50. Riva, M.<sup>P\*</sup>; Yee, L.; Budisulistiorini, S. H.<sup>S</sup>; Edgerton, E.; Goldstein, A. H.; Zhang, Z.; Gold, A.; **Surratt, J. D.** (2014) *Chemical Characterization of Isoprene- and Monoterpene-Derived SOA Tracers in PM<sub>2.5</sub> Collected from Centerville, AL, during SOAS 2013.* American Association for Aerosol Research (AAAR) Annual Meeting. Orlando, FL USA. October 22.
51. Lin, Y.-H. <sup>P\*</sup>; Arashiro, M.<sup>S</sup>; Zhang, Z.; Gold, A.; Jaspers, I.; Fry, R.; **Surratt, J. D.** (2014) *Isoprene-derived Secondary Organic Aerosol and Epoxide Intermediates Induce Altered Expression of Inflammation-Associated Genes in Lung Cells.* American Association for Aerosol Research (AAAR) Annual Meeting. Orlando, FL USA. October 22.
52. Budisulistiorini, S. H.<sup>S</sup>; McNeill, V. F.\*; Pye, H. O. T.; Carlton, A. M.; **Surratt, J. D.** (2014) *Aqueous Sources of Secondary Organic Aerosol in the Southeast Atmosphere Study (SAS).* American Association for Aerosol Research (AAAR) Annual Meeting. Orlando, FL USA. October 22.
53. Arashiro, M.<sup>S\*</sup>; Lin, Y.-H. <sup>P</sup>; Sexton, K. G.; Jaspers, I.; Fry, R.; Gold, A.; **Surratt, J. D.** (2014) *In Vitro Exposures to Isoprene-Derived Secondary Organic Aerosol: Assessing the Effects of Cytotoxicity and Inflammation on BEAS-2B using Resuspension and Direct Deposition Approaches.* American Association for Aerosol Research (AAAR) Annual Meeting. Orlando, FL USA. October 13.
54. Budisulistiorini, S. H.<sup>S\*</sup>; Li, X.<sup>S</sup>; Rattanavaraha, W.<sup>S</sup>; Yee, L. D.; Edgerton, E. S.; Shaw, S. L.; Hicks, W. R.; Bairai, S. T.; Mueller, S. F.; Renfro, J.; Goldstein, A. H.; Zhang, Z.; Gold, A.; **Surratt, J. D.** (2014) *Real-time Characterization of Isoprene-Derived Secondary Organic Aerosol Formation at the Look Rock Site, Tennessee during the 2013 Southern Oxidant and Aerosol Study (SOAS).* Southeast Atmosphere Study (SAS) Data Meeting. Boulder, CO USA. March 31.
55. Budisulistiorini, S. H.<sup>S\*</sup>; Li, X.<sup>S</sup>; Bairai, S. T.; Hicks, W. R.; Renfro, J.; Corrigan, A.; Guzman, J. M.; Russell, L. M.; Liu, Y.; Li, Y.; McKinney, K.; Zhang, X.; Cappa, C. D.; Zimmermann, K.; Bertram, T. H.; Canagaratna, M. R.; Croteau, P. L.; Worsnop, D.

- R.; Jayne, J. T.; Zhang, Z.; Gold, A.; **Surratt, J. D.** (2013) *Real-time Characterization of Isoprene-Derived Secondary Organic Aerosol Formation at the Look Rock Site, Tennessee during the 2013 Southern Oxidant and Aerosol Study (SOAS)*. American Geophysical Union (AGU) Fall Meeting – Air Quality and Climate in the Southeast US, Session 5. San Francisco, CA USA. December 11.
56. Budisulistiorini, S. H.<sup>S\*</sup>; Canagaratna, M. R.; Croteau, P. L.; Baumann, K.; Edgerton, E. S.; Ng, N. L.; Verma, V.; Shaw, S. L.; Knipping, E. M.; Worsnop, D. R.; Jayne, J. T.; Weber, R. J.; **Surratt, J. D.** (2013) *Intercomparison of an Aerosol Chemical Speciation Monitor (ACSM) with Ambient Fine Aerosol Measurements in Downtown Atlanta, Georgia*. American Association for Aerosol Research (AAAR) Annual Meeting. Portland, OR USA. October 2.
57. Budisulistiorini, S. H.<sup>S\*</sup>; Canagaratna, M. R.; Croteau, P. L.; Marth, W. J.<sup>S</sup>; Baumann, K.; Edgerton, E. S.; Shaw, S. L.; Knipping, E. M.; Jansen, J.; Tanner, R. L.; Worsnop, D. R.; Jayne, J. T.; Gold, A.; **Surratt, J. D.** (2012) *Real-time Continuous Characterization of Secondary Organic Aerosol Derived from Isoprene Epoxydiols (IEPOX) in Downtown Atlanta, Georgia, using the Aerodyne Aerosol Chemical Speciation Monitor (ASCM)*. American Association for Aerosol Research (AAAR) Annual Meeting. Minneapolis, MN USA. October 10.
58. Lin, Y.-H.<sup>S\*</sup>; Knipping, E. M.; Edgerton, E. S.; Shaw, S. L.; **Surratt, J. D.** (2012) *Influences of SO<sub>2</sub> and NH<sub>3</sub> Levels on Ambient Isoprene Epoxydiols (IEPOX)-Derived SOA Formation in the Rural Southeastern United States*. American Association for Aerosol Research (AAAR) Annual Meeting. Minneapolis, MN USA. October 10.
59. Zhang, H.<sup>S\*</sup>; **Surratt, J. D.**; Lin, Y.-H.<sup>S</sup>; Bapat, J.; Kamens, R. M. (2011) *Effect of Relative Humidity on SOA Formation from Isoprene/NO Photooxidation: Enhancement of 2-Methylglyceric Acid and its Corresponding Oligoesters under Dry Conditions*. American Association for Aerosol Research (AAAR) Annual Meeting. Orlando, FL USA. October 7.
60. **Surratt, J. D.\***; Lin, Y.-H.<sup>S</sup>; Rubitschun, C. L.<sup>S</sup>; Offenberg, J. H.; Kleindienst, T. E.; Weber, R. J.; Zhang, X. (2011) *Chemical Characterization and Quantification of Organosulfates and Nitrated Organosulfates Derived from BVOCs in PM<sub>2.5</sub> Collected During the CalNex 2010 Campaign*. American Association for Aerosol Research (AAAR) Annual Meeting. Orlando, FL USA. October 7.
61. Zhang, X.\*; Lin, Y.-H.<sup>S</sup>; **Surratt, J. D.**; Zotter, P.; Prevot, A. S. H.; Weber, R. J. (2011) *Light-Absorbing Soluble Organic Aerosol in Los Angeles and Atlanta: A Contrast in Secondary Organic Aerosol*. American Association for Aerosol Research (AAAR) Annual Meeting. Orlando, FL USA. October 7.
62. **Surratt, J. D.\***; Gómez-González, Y.; Chan, A. W. H.; Vermeylen, R.; Shahgholi, M.; Claeys, M.; Flagan, R. C.; Seinfeld, J. H. (2007) *Investigation of Organosulfate Formation in Biogenic Secondary Organic Aerosol*. American Association for Aerosol Research (AAAR) Meeting. Reno, NV USA. September 25.

*Poster Presentations (32 Total, S = graduate student, P = postdoctoral scholar, \* = presenter)*

1. Christensen, C.<sup>S\*</sup>; Reed, N.; **Surratt, J. D.**; Tolbert, T.; Browne, E. (2023) *Organosulfur Speciation in Archean Analog Aerosols: Molecular Characterization and Formation Mechanisms*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 3.
2. Shen, Y.; Murphy, S.; **Surratt, J. D.**; Buchenau, N. A.<sup>S</sup>; Jimenez, J-L.; Day, D. A.; Yun, S.; Ng, N. L.; Dillner, A.; Bahreini, R.; Russell, A. G. (2023) *Analysis of Wildfire Aerosol Aging Using the ASCENT Network Observations*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 3.
3. Armstrong, N. C.<sup>S\*</sup>; Cooke, M.; Chen, Y.; Frauenheim, M.<sup>S</sup>; Zhang, Z.; Gold, A.; Ault, A. P.; **Surratt, J. D.** (2023) *Formation Kinetics of Isoprene Epoxydiol-Derived Secondary Organic Aerosol Are Altered Near the Sulfate/Bisulfate pKa*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 5.
4. Zhang, Y.<sup>P</sup>; Yan, J.<sup>S\*</sup>; Buchenau, N. A.<sup>S</sup>; Canagaratna, M.; Armstrong, N. C.<sup>S</sup>; McCombs, M.; Fennell, T.; Mishina, E.; Reilly, S.; Ferlito, M.; Peters, K.; Thornburg, J.; **Surratt, J. D.** (2023) *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*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 5.
5. Christensen, C.<sup>S\*</sup>; Moschos, V.<sup>P</sup>; Mouton, M.; James, M.; Fiddler, M.; Bililign, S.; Turpin, B. J.; **Surratt, J. D.** (2023) *Chemical Characterization of Water-Soluble Organic Gases from Combustion of African Biomass in Cloud Water Mimics as Precursors to Secondary Organic Aerosol*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 5.
6. Zhang, J.\*; Shrivastava, M.; Zelenyuk, A.; Zaveri, R.; **Surratt, J. D.**; Riva, M.; Bell, D.; Glasius, M. (2023) *Observationally Constrained Modeling of the Reactive Uptake of IEPOX under Elevated RH and Varying Acidity of Seed Aerosol Conditions*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 5.
7. Chang, N.\*; Eichler, N.; Amparo, D.; Zhou, J.; Hubal, E. C.; **Surratt, J. D.**; Morrison, G.; Turpin, B. J. (2023) *Particle-Phase Ionic Per- and Polyfluoroalkyl Substance (PFAS) Profiles, Concentrations, and Artifacts in Indoor Air: Findings from the Indoor PFAS Assessment (IPA) Campaign*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 5.
8. West, G.<sup>S\*</sup>; Eichler, C.; Chang, N.; Turner, B.; Turpin, B. J.; **Surratt, J. D.** (2023) *Airborne Per- and Polyfluoroalkyl Substances (PFAS) in North Carolina Firehouses*. Presented at: 41<sup>st</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 5.
9. Rice, R.<sup>S\*</sup>; Yan, J.<sup>S</sup>; Gerber, S.; Graf, S.; Kamrath, M.; Lopez-Hilfiker, F.; Riva, M.; Zhang, Z.; **Surratt, J. D.**; Gold, A. (2022) *Identifying a Missing Link: Confirmation of the Structure and Origin of 4-hydroxy-3-methylbut-2-enal (4-HPALD) with an Authentic*

- Standard*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 4.
10. Yan, J.<sup>S\*</sup>; Armstrong, N.C.<sup>S</sup>; Fankhauser, A.; Cooke, M.; Buchenau, N. A.<sup>S</sup>; Xiao, Y.; Zhang, Z.; Lambe, A.; Gold, A.; Ault, A. P.; **Surratt, J. D.** (2022) *Effect of Acidity on the Kinetics and Products of Heterogeneous Hydroxyl Radical Oxidation of Isoprene Epoxydiol-Derived Secondary Organic Aerosol*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 4.
  11. Chang, N.<sup>S\*</sup>; Eichler, C.<sup>S</sup>; Amparo, D.<sup>S</sup>; Siesel, I.; Zhou, J.<sup>P</sup>; **Surratt, J. D.**; Hubal, E. C.; Morrison, G.; Turpin, B. J. (2022) *Ionic Per- and Polyfluoroalkyl Substances (PFAS) in PM<sub>2.5</sub> from 10 Homes in North Carolina: Insights from the Indoor PFAS Assessment Campaign*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 4.
  12. Chen, B.\*; Mirrielees, J.; Chen, Y.<sup>S</sup>; Zhang, Z.; Gold, A.; **Surratt, J. D.**; Zhang, Y.; Brooks, S. (2022) *Glass Transition Temperatures of Organic Mixtures from Isoprene Epoxydiol (IEPOX) Derived Secondary Organic Aerosols*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 4.
  13. Lai, Z.\*; Steinke, I.; Wolf, M.; Zhao, J.; Roesch, C.; Liu, X.; Zhang, Z.; **Surratt, J. D.**; Cziczo, D.; Burrows, S.; Zhang, Y. (2022) *Modeling the Effects of Aerosol Phase States on the Deposition Ice Nucleation Ability of Biogenic Secondary Organic Aerosols (SOA)*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 4.
  14. Plaas, H. E.<sup>S\*</sup>; Yan, J.<sup>S</sup>; Armstrong, N. C.<sup>S</sup>; Paerl, H. W.; **Surratt, J. D.** (2022) *Production of SOA from Hydroxyl Radical Oxidation of Two Cyanobacterial-derived BVOCs, Geosmin and 2-Methylisoborneol*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 6.
  15. Kolozsvari, K.\*; Xiao, Y.; Fankhauser, A.; Yan, J.<sup>S</sup>; Cooke, M.; Waters, C.; Parham, R.; Armstrong, N. C.<sup>S</sup>; Zhang, Z.; Gold, A.; **Surratt, J. D.**; Ault, A. P. (2022) *Determining Glass Transition Temperatures of Individual Isoprene-Derived Secondary Organic Aerosol Particles*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 6.
  16. Parham, R.\*; Fankhauser, A.; Shi, J.; Cooke, M.; Yan, J.<sup>S</sup>; Waters, C.; Xiao, Y.; Kolozsvari, K.; Armstrong, N. C.<sup>S</sup>; Zhang, Z.; Gold, A.; **Surratt, J. D.**; Ault, A. P. (2022) *Insoluble Residues from Isoprene-Derived Secondary Organic Aerosol Determined by Nanoparticle Tracking Analysis and Microspectroscopy Techniques*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 6.
  17. Waters, C.\*; Cooke, M.; Fankhauser, A.; Yan, J.<sup>S</sup>; Parham, R.; Kolozsvari, K.; Xiao, Y.; Armstrong, N. C.<sup>S</sup>; Zhang, Z.; Gold, A.; **Surratt, J. D.**; Ault, A. P. (2022) *Evaluation of Oligomeric Content in Secondary Organic Aerosol Using Matrix-Assisted Laser Desorption Mass Spectrometry (MALDI-MS)*. Presented at: 40<sup>th</sup> Annual Conference of the American Association for Aerosol Research (AAAR), October 6.



18. Cui, T.<sup>S\*</sup>; Kamens, R. M.; Pedit, J.; **Surratt, J. D.**; Jaspers, I.; Sexton, K. (2015) *Effect of Titanium Dioxide Particles on Secondary Organic Aerosol Formation from Photooxidation of Toluene*. American Association for Aerosol Research (AAAR) Meeting. Minneapolis, MN USA. October 13.
19. Riva, M.<sup>P\*</sup>; Budisulistiorini, S. H.<sup>P</sup>; Zhang, Z.; Gold, A.; **Surratt, J. D.** (2015) *Chemical Characterization of Gas- and Aerosol-Phase Products from Isoprene Ozonolysis in Presence of Acidic Aerosol: Re-examination of Secondary Organic Aerosol Formation*. American Association for Aerosol Research (AAAR) Meeting. Minneapolis, MN USA. October 13.
20. Rattanavaraha, W.<sup>S\*</sup>; Chu, K.<sup>S</sup>; Budisulistiorini, S. H.<sup>P</sup>; Riva, M.<sup>P</sup>; Lin, Y.-H.<sup>P</sup>; Riedel, T. P.<sup>P</sup>; Edgerton, E. S.; Baumann, K.; Guo, H.; Weber, R. J.; Stone, E.; Zhang, Z.; Gold, A.; **Surratt, J. D.** (2015) *Investigation of the Impact of Anthropogenic Pollution on Isoprene-Derived Secondary Organic Aerosol (SOA) in PM<sub>2.5</sub> Collected at Birmingham, AL during the 2013 Southern Oxidant and Aerosol Study (SOAS)*. American Association for Aerosol Research (AAAR) Meeting. Minneapolis, MN USA. October 13.
21. Riva, M.<sup>P\*</sup>; Budisulistiorini, S. H.<sup>S\*</sup>; Detwiler, T.; Zhang, Z.; Gold, A.; **Surratt, J. D.** (2014) *Chemical Characterization of Gas- and Aerosol-Phase Products from Isoprene Ozonolysis in Presence of Acidic Aerosol: Re-examination of Secondary Organic Aerosol Formation*. American Association for Aerosol Research (AAAR) Annual Meeting. Orlando, FL USA. October 23.
22. Rattanavaraha, W.<sup>S\*</sup>; Budisulistiorini, S. H.<sup>S</sup>; Croteau, P.; Baumann, K.; Edgerton, E. S.; Canagaratna, M.; Jayne, J.; Worsnop, D.; Shaw, S. L.; **Surratt, J. D.** (2014) *Chemical Characterization of Atmospheric Fine Aerosol at the Jefferson Street, Atlanta, GA Using the Aerodyne Aerosol Chemical Speciation Monitor (ACSM): Results from Winter, Spring, and Summer 2014*. American Association for Aerosol Research (AAAR) Annual Meeting. Orlando, FL USA. October 21.
23. Riva, M.<sup>P\*</sup>; Yee, L. D.; Budisulistiorini, S. H.<sup>S</sup>; Edgerton, E. S.; Knipping, E. M.; Goldstein, A. H.; **Surratt, J. D.** (2014) *Chemical Characterization of Isoprene- and Monoterpene-Derived SOA Tracers in PM<sub>2.5</sub> Collected from Centerville, AL, During SOAS 2013*. Southeast Atmosphere Study (SAS) Data Meeting. Boulder, CO USA. March 31.
24. Li, X.<sup>S\*</sup>; Budisulistiorini, S. H.<sup>S</sup>; Rattanavaraha, W.<sup>S</sup>; Yee, L. D.; Edgerton, E. S.; Shaw, S. L.; Hicks, W. R.; Bairai, S. T.; Mueller, S. F.; Renfro, J.; Goldstein, A. H.; Zhang, Z.; Gold, A.; **Surratt, J. D.** (2014) *Molecular Characterization of Biogenic SOA in PM<sub>2.5</sub> Collected at the Look Rock Site During SOAS*. Southeast Atmosphere Study (SAS) Data Meeting. Boulder, CO USA. March 31.
25. Zhang, H.<sup>S\*</sup>; Parikh, H. M.; Bapat, J.; Lin, Y.-H.<sup>S</sup>; **Surratt, J. D.**; Kamens, R. M. (2012) *Modeling of SOA Formation from Isoprene Photooxidation Chamber Studies Using Different Approaches*. Atmospheric Chemical Mechanisms (ACM) Meeting. University of California, Davis. Davis, CA USA. December 10.
26. Zhang, H.<sup>S\*</sup>; Worton, D. R.; Lewandowski, M.; Ortega, J.; Rubitschun, C. L.<sup>S</sup>; Park, J. H.; Kristensen, K.; Campuzano-Jost, P.; Day, D. A.; Jimenez, J. L.; Jaoui, M.;

- Offenberg, J. H.; Kleindienst, T. E.; Gilman, J.; de Gouw, J.; Park, C. H.; Schade, G. W.; Frossard, A. A.; Russell, L. M.; Kaser, L.; Jud, W.; Hansel, A.; Cappellin, L.; Karl, T.; Glasius, M.; Guenther, A.; Goldstein, A. H.; Seinfeld, J. H.; Gold, A.; Kamens, R. M.; **Surratt, J. D.** (2012) *Organosulfates as Tracers for SOA Formation from 2-Methyl-3-Buten-2-ol (MBO) in the Atmosphere*. American Association for Aerosol Research (AAAR) Annual Meeting. Minneapolis, MN, USA. October 16.
27. Lin, Y.-H.<sup>S\*</sup>; **Surratt, J. D.**; Knipping, E. M.; Edgerton, E. S.; Shaw, S. L. (2011) *Chemical Characterization of PM<sub>2.5</sub> Collected with Conditional Sampling Strategies from the Southeastern United States: Influences of SO<sub>2</sub> and NH<sub>3</sub> on Ambient Biogenic SOA Formation*. American Association for Aerosol Research (AAAR) Annual Meeting. Orlando, FL USA. October 4.
28. Lin, Y.-H.<sup>S\*</sup>; Zhang, Z.; Docherty, K. S.; Zhang, H.<sup>S</sup>; Budisulistiorini, S. H.<sup>S</sup>; Rubitschun, C. L.<sup>S</sup>; Shaw, S. L.; Knipping, E. M.; Kleindienst, T. E.; Gold, A.; **Surratt, J. D.** (2011) *Isoprene Epoxydiols as Precursors to Secondary Organic Aerosol Formation: Acid-Catalyzed Reactive Uptake Studies with Authentic Compounds*. Gordon Research Conference on Atmospheric Chemistry. Mount Snow Resort. West Dover, VT USA. July 24-29.
29. Lin, Y.-H.<sup>S\*</sup>; Offenberg, J. H.; Zhang, X.; Weber, R. J.; Kleindienst, T. E.; **Surratt, J. D.** (2011) *Off-line UPLC/ESI-HR-Q-TOFMS Analyses of SOA Heterogeneous-Reaction Products in PM<sub>2.5</sub> Collected from the CalNex-Pasadena Ground Site*. CalNex Data Analysis Workshop. Cal EPA Building. Sacramento, CA USA. May 18.
30. Rubitschun, C. L.<sup>S\*</sup>; Offenberg, J. H.; Kleindienst, T. E.; **Surratt, J. D.** (2011) *Isoprene- and Monoterpene-Derived Organosulfates in PM<sub>2.5</sub> During the CalNex Campaign in Bakersfield, CA*. CalNex Data Analysis Workshop. Cal EPA Building. Sacramento, CA USA. May 17.
31. **Surratt, J. D.\***; Murphy, S. M.; Kroll, J. H.; Ng, N. L.; Hildebrandt, L.; Sorooshian, A.; Szmigielski, R.; Vermeylen, R.; Maenhaut, W.; Claeys, M.; Flagan, R. C.; Seinfeld, J. H. (2006) *Chemical Composition of Secondary Organic Aerosol Formed from the Photooxidation of Isoprene*. EPA Graduate Fellowship Conference. Washington, D.C. USA. September 15.
32. **Surratt, J. D.\***; Gao, S.; Knipping, E. M.; Edgerton, E. S.; Shahgholi, M.; Edney, E. O.; Kleindienst, T. E.; Lewandowski, M.; Offenberg, J. H.; Jaoui, M.; Seinfeld, J. H. (2005) *Secondary Organic Aerosol Formation from the Photooxidation of Complex Hydrocarbon Mixtures: Composition, Effect of SO<sub>2</sub>, and Relevance to Ambient Aerosol*. American Geophysical Union (AGU) Fall Meeting. San Francisco, CA USA. December 7.

**TEACHING RECORD****UNC Courses**

| Course    | Course Title  | Credit Hours | Role                  | Semesters Offered | Enrollment # | All-Time Avg Enrollment # | 2018-2024 Avg Enrollment # |
|-----------|---|--------------|-----------------------|-------------------|--------------|---------------------------|----------------------------|
| ENVR 403  | Environmental Chemistry                               | 3            | Primary Instructor    | Spring 2012       | 15           | 21.0                      | 28.0                       |
|           |   |              |                       | Spring 2013       | 11           |                           |                            |
|           |   |              |                       | Spring 2014       | 12           |                           |                            |
|           |   |              |                       | Spring 2015       | 8            |                           |                            |
|           |   |              |                       | Spring 2016       | 7            |                           |                            |
|           |   |              |                       | Spring 2017       | 17           |                           |                            |
|           |   |              |                       | Spring 2018       | 13           |                           |                            |
|           |   |              |                       | Spring 2019       | 13           |                           |                            |
|           |   |              |                       | Spring 2020       | 21           |                           |                            |
|           |   |              |                       | Spring 2021       | 22           |                           |                            |
|           |   |              |                       | Spring 2022       | 27           |                           |                            |
|           |   |              |                       | Spring 2023       | 34           |                           |                            |
|           |   |              |                       | Spring 2024       | 54           |                           |                            |
| ENVR 416  | Aerosol Physics & Chemistry                           | 4            | Primary Instructor    | Fall 2011         | 5            | 6.9                       | 7.7                        |
|           |   |              |                       | Fall 2012         | 3            |                           |                            |
|           |   |              |                       | Fall 2013         | 3            |                           |                            |
|           |   |              |                       | Fall 2014         | 7            |                           |                            |
|           |   |              |                       | Fall 2015         | 5            |                           |                            |
|           |   |              |                       | Fall 2016         | 7            |                           |                            |
|           |   |              |                       | Fall 2017         | 13           |                           |                            |
|           |   |              |                       | Fall 2018         | 5            |                           |                            |
|           |   |              |                       | Fall 2019         | 11           |                           |                            |
|           |   |              |                       | Fall 2020         | 11           |                           |                            |
|           |   |              |                       | Fall 2021         | 6            |                           |                            |
|           |   |              |                       | Fall 2022         | 9            |                           |                            |
|           |   |              |                       | Fall 2023         | 5            |                           |                            |
| Fall 2024 | 7   |              |                       |                   |              |                           |                            |
| ENVR 500  | Environmental Processes, Exposure and Risk Assessment | 3            | Co-Primary Instructor | Fall 2018         | 12           | 20.2                      | 20.2                       |
|           |   |              |                       | Fall 2019         | 15           |                           |                            |
|           |   |              |                       | Fall 2020         | 19           |                           |                            |
|           |   |              |                       | Fall 2021         | 25           |                           |                            |
|           |   |              |                       | Spring 2024       | 24           |                           |                            |

**ADVISING RECORD****Current Graduate Student Supervision - Primary Advisor (6 Ph.D, 1 M.S.)**

1. Samantha Bell (Ph.D., UNC Chemistry), began Fall 2024
2. Joji Sherman (Ph.D., UNC ESE), began Fall 2024
3. Rebecca Turner (M.S., UNC ESE), began Summer 2024.
4. Yufan Hu (Ph.D., UNC Chemistry), began Fall 2023.
5. Gabrielle West (Ph.D., UNC Chemistry), began Fall 2021, passed qualifying exam spring 2023.
6. Cade Christensen (Ph.D., UNC Chemistry), began Fall 2021, passed qualifying exam spring 2023.
7. Michael Davern (Ph.D., UNC Chemistry), began Fall 2021, passed qualifying exam spring 2023.

8. Nicolas Buchenau (Ph.D., UNC ESE), began Summer 2020, passed written exam spring 2024.

***Current Graduate Student Supervision – Co-Advisor (1 Ph.D.)***

1. Rebecca Rice (Ph.D., UNC ESE), began Fall 2020, co-advised with Prof. Avram Gold (UNC)

***Current Postdoctoral Scholar Supervision – Primary Advisor (1 Total)***

1. Haley Royer (Postdoctoral Scholar, UNC ESE), began July 2023.

***Research Advisor to Visiting Scholars (5 total)***

1. Faria Khan (Ph.D., Polish Academy of Sciences, Chemistry), December 2019 – November 2020.
2. Erickson Oliveira dos Santos (Ph.D., Universidade Federal do Amazonas, Chemistry), June 2017 – June 2018.
3. Thais Da Silva Barbosa (Ph.D., Universidade Federal Rural do Rio de Janeiro, Chemistry), May 2015 – April 2016.
4. Sophie Tomaz (Ph.D., University of Bordeaux, Chemistry) – September 2014 – November 2014.
5. Kasper Kristensen (Ph.D., Aarhus University, Chemistry) – July 2012 – December 2012.

***Completed Graduate and Undergraduate Research Student Supervision – Advisor (30) (11 Ph.D., 9 M.S., 3 M.S.P.H., 1 M.S.E.E., 5 B.S.P.H. Honors Thesis, 1 B.S. Honors Thesis)***

1. N. Cazimir (Caz) Armstrong (Ph.D., UNC ESE), “Formation and Evolution of Isoprene Epoxydiol-derived Secondary Organic Aerosol: Composition, Hygroscopicity, and Role of Heterogeneous Oxidation,” August 2024.
2. Molly Frauenheim (Ph.D., UNC ESE), “Characterization and Fate of Isoprene Epoxydiol Isomerization Products in Atmospheric Secondary Organic Aerosol,” August 2024. Co-Advised with Prof. Avram Gold (UNC, ESE)
3. Jin Yan (Ph.D., UNC ESE), “Chemical Characterization of Fresh E-Cig and Aged Isoprene-Derived Organic Aerosols,” August 2024.
4. Adriene Lambert (M.S., UNC ESE), “Assessing the Impact of Atmospheric Photochemical Aging on Organic Aerosol Tracers Derived from Burning African Biomass Commonly Found in Botswana,” December 2023.
5. Aashna Shukla (B.S.P.H., Honors Thesis, UNC ESE), “Aerosol Formation Potential Assess from the Atmospheric Hydroxyl Radical Oxidation of 6:2 Fluorotelomer Alcohol (FTOH),” May 2022.
6. Faria Khan (Ph.D., Polish Academy of Sciences – Chemistry), “Chemical Profiling and Toxicological Assessment of Atmospheric Aerosol Using Human Lung Cells,” January 2022. Co-Advised with Prof. Rafal Szmigielski (Polish Academy of Sciences).

7. Yuzhi Chen (Ph.D., UNC ESE), *“Characterizing the Effects of Aerosol Sulfate, Phase State, and Aging on Secondary Organic Aerosol Formation from Isoprene Epoxydiols,”* December 2020.
8. Ashley Harrill (M.S., UNC ESE), *“Aqueous-Phase Processing of 2-Methyltetrol Sulfates by Hydroxyl Radical Oxidation in Fog and Cloud Water Mimics: Implications for Isoprene-Derived Secondary Organic Aerosol,”* August 2020.
9. Caz Nichols (M.S., UNC ESE), *“Highly Oxidized Compounds from Heterogeneous Oxidation of Isoprene Epoxydiol (IEPOX)-Derived Secondary Organic Aerosol (SOA) Identified using Hydrophilic Interaction Liquid Chromatography Interfaced to Electrospray Ionization High-Resolution Quadrupole Time-of-Flight Mass Spectrometry,”* May 2020.
10. Tianqu Cui (Ph.D., UNC ESE), *“Chemical Characterization of Source-Specific Atmospheric Organic Aerosol via Mass Spectrometry,”* May 2019.
11. Grace Nipp (B.S.P.H., Honors Thesis, UNC ESE), *“Developing a Versatile Exposure System for the Analysis of the Effects of Electronic Cigarettes,”* April 2019.
12. Caitlin Rose (M.S., UNC ESE), *“The Effect of Isomeric Isoprene Epoxydiol Structure on the Sulfur Mass Balance of Fine Particulate Matter,”* January 2019.
13. Zhexi Zeng (M.S., UNC ESE), *“Development of a Hydrophilic Interaction Liquid Chromatography (HILIC) Method for the Chemical Characterization of Water-Soluble Isoprene Epoxydiol (IEPOX)-Derived Secondary Organic Aerosol,”* May 2018.
14. Rachel Long (M.S.P.H., UNC ESE), *“Chemical Characterization and Dithiothreitol Reactivity of Fine Particulate Matter Derived from Fourth Generation E-Cigarette Usage,”* May 2017.
15. Michael M. Williams (M.S., UNC ESE), *“Chemical Characterization and Reactive Oxidant Potential of Indonesian Biomass Burning Emissions,”* April 2017.
16. Hilary S. Green (B. S., Honors Thesis, UNC Chemistry), *“Chemical Characterization of Fine Aerosol Collected from Central Amazonia Reveals that Isoprene-Derived Epoxides and Multifunctional Hydroperoxides Substantially Contributes to the Organic Mass Fraction,”* March 2017.
17. Maiko Arashiro (Ph.D., UNC ESE), *“Understanding the Biological Effects of Isoprene-Derived Secondary Organic Aerosol,”* January 2017.
18. Weruka Rattanavaraha (Ph.D., UNC ESE), *“Chemical Characterization and Source Apportionment of Organic Aerosol, at Urban and Rural Sites in the Southeastern U.S.,”* August 2016.
19. Vineet Raja Gopinathan (B.S.P.H., Honors Thesis, UNC ESE), *“Investigation of the Effect of Aerosol Acidity, Oxidant Type, and Nucleation on MBO-Derived SOA Composition and Yield,”* April 2016.
20. Kevin Chu (M.S., UNC ESE), *“Investigation of the Influences of Anthropogenic Emissions on Isoprene-Derived Secondary Organic Aerosol Formation During the 2013 Southern Oxidant & Aerosol Study at the Birmingham, Alabama Ground Site,”* August 2015.

21. Amanda Kramer (B.S.P.H. Honors Thesis, UNC ESE), *"Assessing the Reactive Oxidant Potential of Isoprene-Derived Epoxides and Secondary Organic Aerosol,"* April 2015.
22. Sri Hapsari Budisulistiorini (Ph.D., UNC ESE), *"Real-Time Chemical Characterization of Atmospheric Organic Aerosol in the Southeastern United States by Aerosol Mass Spectrometry,"* December 2014.
23. Xinxin Li (M.S.P.H., UNC ESE), *"Investigation of the Influences of Anthropogenic Emissions on Isoprene-Derived Secondary Organic Aerosol (SOA) Formation During the 2013 Southern Oxidant & Aerosol Study (SOAS) at the Look Rock, TN, Ground Site,"* August 2014.
24. Kevin Chu (B.S.P.H. Honors Thesis, UNC ESE), *"Formation of Light-Absorbing Secondary Organic Aerosol from Reactive Uptake of Isoprene Epoxydiols,"* April 2014.
25. Tianqu Cui (M.S., UNC ESE), *"Secondary Organic Aerosol Formation from  $\alpha$ -Pinene and Toluene: Laboratory Studies Examining the Role of Pre-existing Particles, Relative Humidity and Oxidant Type,"* December 2013.
26. Roger Jerry (M.S.P.H., UNC ESE), *"Model Intercomparison Study of Methacrolein and Methyl Vinyl Ketone from Isoprene Photooxidation,"* December 2013.
27. Ying-Hsuan Lin (Ph.D., UNC ESE), *"Chemical Characterization of Secondary Organic Aerosol Constituents and Critical Intermediates from Isoprene Photooxidation,"* May 2013.
28. Wendy Marth (M.S., UNC ESE), *"Utilizing and Characterizing Chemical Ionization Mass Spectrometry (CIMS) as a Method to Estimate Secondary Organic Aerosol Yields from Isoprene-Derived Epoxides,"* May 2013.
29. Haofer Zhang (Ph.D., UNC ESE), *"Characterization and Simulation of Isoprene Photooxidation from Smog Chamber Studies,"* May 2012.
30. Caitlin L. Rubitschun (M.S.E.E., UNC ESE), *"Chemical Characterization of Organosulfates in Fine Aerosols in Bakersfield, California During the 2010 CalNex Field Campaign,"* May 2012.

#### **Completed Postdoctoral Scholar Supervision – Advisor (9)**

1. Vaios Moschos (Postdoctoral Scholar, NCA&T University and UNC ESE), Fall 2021-Summer 2024, co-advised with Prof. Solomon Bililign (NCA&T University)
2. Jiaqi Zhou (Postdoctoral Scholar, UNC ESE), began Fall 2018 – Fall 2022.
3. Yue Zhang (Postdoctoral Scholar, UNC ESE), August 2016 – December 2020. Now at Texas A&M University as an Assistant Professor.
4. Dr. Sarah Petters (Postdoctoral Scholar, UNC ESE), May 2019 – June 2020. Now at Aarhus University in Denmark as a Postdoctoral Fellow.
5. Dr. Sophie Tomaz (Postdoctoral Scholar, UNC ESE), August 2016 – September 2018. Now a Research Scientist at CNRS-Lyon in France studying atmospheric chemistry.

6. Dr. Sri Hapsari Budisulistiorini (Postdoctoral Scholar, UNC ESE), January 2015 – August 2015. Now at Nanyang Technological University in Singapore as a Postdoctoral Scholar in Professor Mikinori Kuwata's group.
7. Dr. Matthieu Riva (Postdoctoral Scholar, UNC ESE), February 2014 – January 2016. Now a permanent Research Scientist at CNRS-Lyon in France studying atmospheric chemistry.
8. Dr. Yin-Hsuan Lin (Postdoctoral Scholar, UNC ESE), May 2013 – August 2015. Now at University of California-Riverside as an Assistant Professor in the Department of Environmental Sciences.
9. Dr. Theran Riedel (Postdoctoral Scholar, UNC ESE), September 2013 – October 2015. Was at the U.S. Environmental Protection Agency (EPA) in the Research Triangle Park, NC (deceased).

***Current Graduate Student Supervision – Committee Member (4 Total)***

1. Sahir Gagan (Ph.D., Teaxs A&M Atmospheric Sciences), began Fall 2022
2. Haley MacDonald (Ph.D., UNC ESE), began Fall 2022
3. Alexandra Ng (Ph.D., UNC ESE), began Fall 2022
4. Sara Farrell (Ph.D., UNC ESE), began Fall 2022

***Completed Graduate Student Supervision – Committee Member (36 Total)***

1. Syed Masood (Ph.D., UNC Toxicology), "Mechanisms of Oxidative Stress in Human Airway Epithelial Cells Exposed to An Environmental Peroxide," April 2024.
2. Naomi Chang (Ph.D., UNC ESE), "Ionic PFAS in the Indoor Environment: Insights into the Dynamics of PFAS and Implications for Exposure," April 2024.
3. Clara Eichler (Ph.D., UNC ESE), "Characterization of the Distribution and Fate of Neutral Per- and Polyfluoroalkyl Substances (PFAS) in Indoor Environments Including the Role of Clothing," April 2024.
4. Christopher Bowers (Ph.D., UNC ESE), "Generalized Newtonian Fluid Mechanics in Porous Medium Systems," Jan 2024.
5. Haley E. Plaas (Ph.D., UNC ESE), "Understanding the Impacts of Harmful Cyanobacterial Blooms on Air Quality," December 2023.
6. Cameron D. Worthington (Ph.D., UNC Chemistry), "Utilizing Ion Mobility to Understand and Improve Mass Spectrometry Analyses," May 2023.
7. Marc Webb (Ph.D., UNC ESE), "Water-Soluble Species in Residential Air, Air-Surface Dynamics and the Influence of Surface Films and Water," August 2023.
8. Kevin Mauge-Lewis (Ph.D., UNC Toxicology), "An Evaluation of Toxicity in Modern Fluorotelomer-Based Aqueous Film-Forming Foam (AFFF) Exposed Human Liver Cells," April 2022.
9. Sara Farrell (M.S. UNC ESE), "Modeling Kinetically-Limited IEPOX-SOA Uptake via Volatility Based and Compositionally Defined Glass Transition Temperatures in CMAQ5.3," July 2021.

10. Ziying Lei (Ph.D., University of Michigan), "Single Particle Physical and Chemical Characterization of Atmospheric Aerosol Particles," July 2021.
11. Tessa Szalkowski (M.S., UNC ESE), "Chemical Characterization of Isoprene- and Monoterpene-Derived SOA Tracers in Marine Aerosols from the Galápagos Islands," April 2021.
12. Megan Miller (M.S., UNC ESE), "Comparison of PCR Methodologies for the Detection and Quantification of SARS-COV-2 in North Carolina Community Wastewaters," April 2021.
13. Yael-Natalie H. Escobar (Ph.D., UNC Toxicology), "Propylene Glycol and Glycerol, the Unlikely Culprits: A Study of the Biological Effects of Electronic Cigarette Generated Aerosols on Airway Epithelial Cells," September 2020.
14. Damon M. Smith (Ph.D., NC A&T University), "Measuring the Optical, Physical, and Chemical Properties of Aging Biomass Burning Aerosols Native to sub-Saharan Africa," March 2020.
15. Chi-Tsan Wang (Ph.D., UNC ESE), "Emissions from the Cultivation of Cannabis and their Impact on Regional Air Quality," December 2019.
16. Elizabeth Corteselli (Ph.D., UNC ESE), "Polyunsaturated Fatty Acids as Determinants of Redox Changes and Inflammatory Responses in Human Airway Epithelial Cells Exposed to Ozone," August 2019.
17. Yuchen Wang (Ph.D., HKUST Chemistry), "Organosulfates in Atmospheric Aerosols: Synthesis, Quantification, Ambient Abundance and Insights into Formation Mechanism," July 2019.
18. Kara Kocheck (M.S., UNC ESE), "Microbial Source Tracking Following Extreme Flooding in Areas of Dense Swine Production," May 2019.
19. Ryan Schmedding (M.S., UNC ESE), "The Effect of Secondary Organic Aerosol Phase Separation and Viscosity in a Regional Scale Air Quality Model," May 2019.
20. Kenneth D. Swanson (Ph.D., UNC Chemistry), "Improvements to Real Time Aerosol Analysis Using Ambient Sampling/Ionization Mass Spectrometry," July 2018.
21. Mutian Ma (M.S., UNC ESE), "The Predicted Impact of Organic Coatings on Isoprene-Derived Secondary Organic Aerosol Formation," December 2017.
22. Zhenyu Tian (Ph.D., UNC ESE), "Non-Target Analysis of Bioremediated Soil," December 2017.
23. Yuqiang Zhang (Ph.D., UNC ESE), "Application of Chemical Transport Models to Study Global and Regional Air Quality and Human Health," January 2016.
24. Mohammad Safi Shalamzari (Ph.D., University of Antwerp, Pharmaceutical Sciences), "Molecular Characterization of Polar Organosulfates in Secondary Organic Aerosol from Isoprene and Unsaturated Aldehydes using Liquid Chromatography/(-) Electrospray Ionization Mass Spectrometry," December 2015.



25. Geoffroy Duporte (Ph.D., University of Bordeaux, Chemistry), *“Secondary Organic Aerosol Formation: Experimental Study of Organosulfate Formation at the Gas-Particle Interface,”* December 2014.
26. Sandra E. Spencer (Ph.D., UNC Chemistry), *“Development of an Aerosol Mass Spectrometry System for the Analysis of the Composition of Aerosol Particles in Real Time,”* November 2014.
27. Matthew Woody (Ph.D., UNC ESE), *“On Enhancing Air Quality Model Predictions of Particulate Matter from Aircraft Emissions,”* October 2014.
28. Yuzhi Chen (M.S.E.E., UNC ESE), *“Assessment of SAPRC07 with Updated Isoprene Oxidation Chemistry Against Outdoor Chamber Experiments,”* August 2014.
29. Evan Couzo (Ph.D., UNC ESE), *“Air Quality Models and Unusually Large Ozone Increases: Identifying Model Failures, Understanding Environmental Causes, and Improving Modeled Chemistry,”* August 2013.
30. Meridith Fry (Ph.D., UNC ESE), *“The Impacts of Short-Lived Ozone Precursors on Climate and Air Quality,”* March 2013.
31. Xiaolu Zhang (Ph.D., Georgia Institute of Technology - Earth and Atmospheric Sciences) *“Sources, Formation and Properties of Soluble Organic Aerosols: Results from Ambient Measurements in the Southeastern United States and the Los Angeles Basin,”* August 2012.
32. Maiko Arashiro (M.S.E.E., UNC ESE), *“Precision of Measurements with the UNC Passive Aerosol Sampler,”* May 2012.
33. Seth Erbersviller (Ph.D., UNC ESE), *“PM Biological Effect Modification by Gases in Urban Air,”* January 2012.
34. Pamela Birak (Ph.D., ESE), *“Remediation of Multicomponent Dense Nonaqueous Phase Liquids in Porous Media,”* May 2011.
35. Adeola (Adey) Olatosi (M.S., UNC ESE), *“Assessment of Air Quality Model Predictions of Ozone Concentrations Characterized by Large Hourly Changes in Houston, Texas,”* May 2011.
36. Jyoti Bapat (M.S., UNC ESE), *“The Generation of an Experimental Database for Testing Predictive Models for  $\alpha$ -Pinene Gas- and Particle-Phase Reactions in the Atmosphere,”* May 2011.

**Graduate Student Supervision – Advisee Honors (12 Total)**

1. Yuzhi Chen (Ph.D., UNC ESE): Gillings School of Global Public Health’s *“Bernard G. Greenberg Award for Excellence in Doctoral Research,”* 2022.
2. Caz Nichols (Ph.D., UNC ESE): *UNC Roysters Graduate Fellowship*, awarded Fall 2020.
3. Maiko Arashiro (Ph.D., UNC ESE): *Graduate Education Advancement Board Impact Award*, awarded April 2015.

4. Sri Hapsari Budisulistiorini (Ph.D., UNC ESE): *Student Poster Competition Award Winner* at the annual meeting of the American Association for Aerosol Research (AAAR), awarded October 2014.
5. Maiko Arashiro (Ph.D., UNC ESE): *Student Travel Award* to Annual Meeting of the American Association for Aerosol Research (AAAR), awarded October 2014.
6. Ying-Hsuan Lin (Ph.D., UNC ESE): *U.S. EPA Blue Ribbon Paper Award* – “For outstanding collaborative efforts to improve the characterization of organic aerosols,” awarded Spring 2014.
7. Sri Hapsari Budisulistiorini (Ph.D., UNC ESE): *UNC Off-Campus Dissertation Completion Fellowship*, Spring 2014.
8. Sri Hapsari Budisulistiorini (Ph.D., UNC ESE): *Student Travel Award* to Annual Meeting of the American Association for Aerosol Research (AAAR), awarded 2013.
9. Ying-Hsuan Lin (Ph.D., UNC ESE): *UNC Dissertation Completion Fellowship*, awarded 2012-2013.
10. Sri Hapsari Budisulistiorini (Ph.D., UNC ESE): *Fulbright Presidential Fellowship*, awarded 2010-2013.
11. Caitlin Rubitschun (M.S.E.E., UNC ESE): *Weiss Urban Livability Senior Fellow Award*, awarded 2011-2012.
12. Caitlin Rubitschun (M.S.E.E., UNC ESE): *Weiss Urban Livability Fellowship*, awarded 2010-2011.

#### ***Undergraduate Research Students Supervised (16 Total)***

1. Rebecca Turner (UNC, B.S.P.H. ENVR) – Fall 2022 – Present
2. Adrienne Lambert (UNC, B.S. Biology and Chemistry) – Summer 2021- Fall 2022
3. Aashna Shukla (UNC, B.S.P.H ENVR) – Summer 2021 – May 2022
4. Lena Gerritz (UNC, B.S. Chemistry) – Fall 2019 – May 2021
5. Tessa Szalkowski (UNC, B.S. Chemistry) – Spring 2018 – Spring 2020
6. Grace Nipp (UNC, B.S.P.H. ENVR) – Fall 2017 – Spring 2019
7. Caitlin Rose (UNC, B.S.P.H. ENVR) – Fall 2016 – Spring 2017
8. Hilary Green (UNC, B. S. Chemistry) – Spring 2015 – Spring 2017
9. Tashana Detwiler (UNC, B.A. Chemistry) – NSF IDEA Program, Summer 2014 – Spring 2015
10. Vineet Gopinathan (UNC, B.S.P.H. ENVR) – Summer 2014 – Spring 2016
11. Amanda Kramer (UNC, B.S.P.H. ENVR) – Fall 2013 – Spring 2015
12. Gabby Agostini (UNC, B.S. Chemistry) – Summer 2012 – Fall 2012
13. Kevin Chu (UNC, B.S.P.H. ENVR) – Spring 2012 – Spring 2014
14. Caroline Coulter (UNC, B.S. Chemistry) - Fall 2011 – Spring 2012

15. Sarah Park (UNC) – Fall 2011

16. Dominique Moore (UNC) – NSF SMART Program, Summer 2011

**GRANTS (Total ~ \$29,946,438; To UNC - \$16,222,441)**

Current Support (Total - \$19,015,464; To UNC - \$5,291,467)

National Science Foundation                      Surratt (Co-PI)                      9/1/2024-8/31/2027  
\$1,133,485 (total and to UNC)

“MRI Track 1: Acquisition of a High-Resolution Ion Mobility Time-of-Flight Mass Spectrometer to Advance Understanding of Atmospheric Multiphase Chemistry”

NC Collaboratory                                      Surratt (Lead PI)                      4/1/2024-3/31/2026  
\$300,000 (total and to UNC)

“Improved Online Quantification of Airborne PFAS in NC by a Field-Deployable GC-CIMS Method”

National Science Foundation (NSF)              Surratt (Co-PI)                      6/1/2023-5/31/2026  
\$667,687 (total and to UNC)

“Early-Generation Photochemical Oxidation Products of Isoprene Under Low-NO Conditions: Aerosol Formation Potential and Structural Assignments by Ion Mobility Mass Spectral Analysis”

U.S. Environmental Protection Agency          Surratt (Lead PI)                      5/1/2022-4/30/2025  
\$799,833 (total) → \$400,028 to UNC

“Development of High-Resolution Chemical Ionization Mass Spectrometry Methods for Real-Time Measurement of Emerging Airborne Per- and Polyfluoroalkyl Substances (PFASs)”

NC Collaboratory                                      Surratt (Co-Lead PI)                      5/1/2022-4/30/2024  
\$750,000 (total and to UNC)

“Chemical Characterization and Variability of Per- and Polyfluoroalkyl Substances (PFAS) in Indoor and Outdoor Air Environments in North Carolina”

National Science Foundation (NSF)              Surratt (Co-PI)                      11/1/2021-9/30/2025  
Atmospheric Chemistry (AGS)                      \$12,136,232 (total) → \$302,515 to UNC

“Mid-Scale RI-1 (M1:IP): ASCENT: Atmospheric Science and Chemistry mEasurement of NeTwork”

National Science Foundation (NSF)              Surratt (Co-PI)                      8/1/2021-7/31/2025  
Atmospheric Chemistry (AGS)                      \$898,983 (total) → \$195,299 to UNC

“Collaborative Research: Characterizing the Cloud Formation Properties of Secondary Organic Aerosol (SOA) Formed from Aqueous Multiphase Chemical Processes”

National Science Foundation (NSF)              Surratt (Co-PI)                      7/6/2021-6/30/2025  
Atmospheric Chemistry (AGS)                      \$869,910 (total) → \$258,328 to UNC

“Excellence in Research: Biomass Burning Aerosol – Molecular Level Characterization of Aging Conditions on Optical and Chemical Properties”

National Science Foundation (NSF) Surratt (Co-Lead PI) 3/1/2021-2/28/2025  
Atmospheric Chemistry (AGS) \$899,401 (total) → \$474,387 to UNC

“Collaborative Research: Organosulfate Multiphase Chemistry and Physicochemical Properties: Oxidation and Sulfate Recycling in Aerosols and Cloud Droplets”

National Science Foundation (NSF) Surratt (Co-PI) 3/1/2021-2/28/2025  
Atmospheric Chemistry (AGS) \$559,933 (total) → \$409,933 to UNC

“Collaborative Research: Reframing Modeling Approaches for Multiphase Chemistry: Isoprene and Beyond”

**Completed Research Support (Total - \$10,930,974)**

Alfred P. Sloan Foundation Surratt (Co-I) 7/1/2020-8/30/2024  
Chemistry of Indoor Environments \$500,000 (total)

“Probing the Behavior of Emerging Water-Soluble Organic Compounds in Indoor Air”

National Science Foundation (NSF) Surratt (Co-PI) 2/15/2020-1/31/2024  
Atmospheric Chemistry (AGS) \$596,470 (total)

“Comparison of Thermal and Non-Thermal Protocols for Analysis of Isoprene Secondary Organic Aerosol (SOA) Generated Under Conditions of Low Nitrogen Oxides (NO<sub>x</sub>)”

National Science Foundation (NSF) Surratt (Co-I) 8/1/2020 – 7/31/2022  
Atmospheric Chemistry (AGS) \$199,997 (total)

“RAPID: Airborne CoV-2 Viability and Oxidation”

Food and Drug Administration (FDA) Surratt (Co-Lead PI) 11/1/2018-10/31/2023  
Subcontract from Research Triangle Institute \$321,036 (to UNC)

“Identification and Validation of a Biomarker of Electronic Cigarette Exposure”

Sloan Foundation Surratt (Co-PI) 7/1/2017-6/30/2021  
Chemistry of Indoor Environments \$750,000 (total)

“Investigating the Impacts of Water-Soluble Organic Gases and Surface Chemistry on Air Composition in Damp Homes”

NC Policy Collaboratory Surratt (Director) 7/1/2018-4/15/2021  
N.C. Per- and Polyfluoroalkyl Substance Testing Network \$5,013,000 (total)

National Science Foundation (NSF) Surratt (Co-Lead PI) 7/1/2017-12/31/2020  
Atmospheric Chemistry (AGS) \$290,000 (total)

“Collaborative Research: Impact of Aerosol Viscosity, Phase Separation, and Internal Structure on Isoprene-Derived SOA Formation”

National Oceanic & Atmospheric Administration (NOAA) Surratt (Co-Lead PI) 7/1/2016-6/30/2020  
\$592,448 (total)

“Characterizing Oxidized North American Fire Emissions and Their Aqueous/Multiphase Transformations through the FIREX Campaign”

National Science Foundation (NSF) Surratt (Lead PI) 11/15/2014-11/14/2018  
Environmental Chemical Sciences (ECS) \$300,000 (total)

“Collaborative Research: Quantifying Secondary Organic Aerosol Formation from the Reactive Uptake of Isoprene-derived Epoxides to Submicron Aerosol Particles”

UNC School of Medicine Surratt (Lead-PI) 9/1/2016-8/31/2017  
TCORS Pilot Grant Program \$50,040 (total)

“Chemical Characterization of Submicron Particulate Matter and Vapors Derived from E-Cigarette Usage”

University of North Carolina Surratt (Co-PI) 9/1/2016-8/31/2017  
CEHS Pilot Projects Program \$30,000 (direct)

“Using CRISPR/Cas9 Technology to Establish the Role of NRF2 as a Driver of Isoprene SOA-Induced Genomic Stress Response”

University of Texas at Austin Surratt (Co-PI) 9/1/2016-8/30/2017  
Air Quality Research Program (AQRP) \$225,000 (total)

“Condensed Chemical Mechanisms for Ozone and Particulate Matter Incorporating the Latest in Isoprene Chemistry”

National Oceanic & Atmospheric Administration (NOAA) Surratt (Lead PI) 8/1/2013-7/31/2017  
\$262,500 (total)

“Organic Nitrogen in Atmospheric Aerosols: Concentrations, Chemical Composition, and Properties”

U.S. Environmental Protection Agency Surratt (Lead PI) 3/1/2013-2/28/2017  
Early Career Award \$300,000 (total)

“Impacts of Anthropogenic Emissions in the Southeastern U.S. on Heterogeneous Chemistry of Isoprene-Derived Epoxides Leading to Secondary Organic Aerosol Formation”

Health Effects Institute (HEI) Surratt (Lead PI) 5/1/2013-10/31/2016  
Walter A. Rosenblith New Investigator Award \$450,000 (total)

“Understanding the Health Effects of Isoprene-Derived Particulate Matter Enhanced by Anthropogenic Pollutants”

Electric Power Research Institute (EPRI) Surratt (Lead PI) 10/1/2010-12/31/2016  
Subcontract \$449,979 (total)

“Field Deployment of the Aerodyne Aerosol Chemical Speciation Monitor (ACSM) within the SEARCH Network”

Camille & Henry Dreyfus Foundation Surratt (Lead PI) 2/1/2014-1/31/2016  
Postdoctoral Program in Environmental Chemistry \$120,000 (total)

“Heterogeneous Chemistry of Isoprene-Derived Epoxides Leads to Secondary Organic Aerosol Formation: Implications for Air Quality, Climate, and Public Health in the Southeastern United States”

University of Texas at Austin Surratt (Co-PI) 6/1/2014-6/30/2015  
Air Quality Research Program (AQRP) \$200,000 (total)

“Update and Evaluation of Model Algorithms Needed to Predict Particulate Matter from Isoprene”

University of Texas - Austin Surratt (Lead PI) 4/1/2013-8/31/2013  
Sub-Contract \$14,752 (total)

“Generation of Exposed Lung Cells Tissues to Various Environmental Conditions”

University of North Carolina Surratt (Lead PI) 4/1/2012-3/31/2013  
CEHS Pilot Projects Program \$25,000 (total)

“Understanding the Health Effects of Isoprene-Derived Particulate Matter Enhanced by Anthropogenic Pollutants”

Electric Power Research Institute (EPRI) Surratt (Lead PI) 1/1/2012-3/31/2012  
Subcontract \$23,516 (total)

“Chemical Characterization of Toluene and  $\alpha$ -Pinene: Influence of  $\text{NH}_3$  on Aerosol Composition”

URC Grant Surratt (Lead PI) 6/1/2011-5/31/2012  
Small Grant \$2,500 (total)

“Analysis of  $\text{PM}_{2.5}$  collected from Beijing, China during the 17<sup>th</sup> Annual Asian Games”

RJ Reynolds Fund Award Surratt (Lead PI) 1/1/2011-12/31/2011

JR Faculty Award Grant \$7,500 (total)

“Chemical Characterization of  $\text{PM}_{2.5}$  Collected from the CalNex 2010 Campaign”

Electric Power Research Institute (EPRI) Surratt (Lead PI) 10/1/2010-3/31/2012  
Subcontract \$74,295 (total)

“ $\text{PM}_{2.5}$  Conditional Sampling”

Electric Power Research Institute (EPRI) Surratt (Lead PI) 10/1/2010-6/30/2011  
Subcontract \$99,955 (total)

“Field Deployment of a Scanning Mobility Particle Sizer (SMPS) System in the SEARCH Network”

Alion Science & Technology/U.S. EPA Surratt (Lead PI) 5/10/2010-8/10/2010  
Cooperative Agreement \$32,986 (total)

“Chemical Characterization of the Organic Fraction in PM<sub>2.5</sub> Collected During the CalNex-Los Angeles and CalNex-Bakersfield Campaigns during Summer 2010”

## PROFESSIONAL SERVICE

### International Level

#### *Associate Editor/Editorial Board Member for Scientific Journals*

ES&T Air (2023-Present)  
ACS Earth and Space Chemistry (2017-Present)  
PeerJ (2017-Present)  
AIMS Environmental Science (2017-Present)  
Atmospheric Chemistry & Physics (2016-Present)

#### *Reviewer for Scientific Journals (average 3 reviews per month)*

Nature Geoscience  
Proceedings of the National Academy of Sciences of the United States of America  
Environmental Science and Technology  
Atmospheric Chemistry and Physics  
Analytical Chemistry  
Journal of Physical Chemistry A  
Journal of American Chemical Society  
Atmospheric Environment  
Journal of Geophysical Research-Atmospheres  
Geophysical Research Letters  
Air Quality, Atmosphere and Health  
Aerosol and Air Quality Research  
Journal of Environmental Monitoring  
Physical Chemistry Chemical Physics  
Environmental Monitoring  
RSC Advances  
Journal of Atmospheric Chemistry  
Journal of Synchrotron Radiation

*Incoming 2025 Conference Chair for the for the American Association for Aerosol Research (AAAR) in Buffalo, NY, USA*

*Elected to the Board of Directors for the American Association for Aerosol Research (AAAR) - Fall 2017 - Fall 2020*

***Organizer for the Telluride Science Research Center Workshop on “Organic Particles in the Atmosphere: Formation, Properties, Processing, and Impact” – July 2018***

***Elected Chair for Aerosol Chemistry Working Group at AAAR - Fall 2015-Fall 2016***

***Elected Vice-Chair for Aerosol Chemistry Working Group at AAAR - Fall 2014-Fall 2015***

***Conference Session Co-Chair (6 total)***

**2012** American Association for Aerosol Research (AAAR) Annual Meeting (Minneapolis, MN): Platform Session on “*Instrumentation and Methods III*”

**2012** American Association for Aerosol Research (AAAR) Annual Meeting (Minneapolis, MN): Platform Session on “*Source Apportionment IV*”

**2012** American Association for Aerosol Research (AAAR) Annual Meeting (Minneapolis, MN): Platform Session on “*Remote and Regional Atmospheric Aerosols IV*”

**2011** American Association for Aerosol Research (AAAR) Annual Meeting (Orlando, FL): Platform Session on “*Organic Aerosol Chemistry II*”

**2011** American Association for Aerosol Research (AAAR) Annual Meeting (Orlando, FL): Platform Session on “*Urban Aerosols VIII*”

**2007** American Association for Aerosol Research (AAAR) Annual Meeting (Reno, NV): Platform Session on “*Hygroscopicity & Other Physical Properties of Organic Aerosol*”

***Peer Review for Grant Proposals***

National Science Foundation (NSF) – Atmospheric Chemistry

Department of Energy (DOE) – Research Review Panelist

National Oceanic and Atmospheric Administration (NOAA)

Swiss National Science Foundation (SNSF)

**National Level**

***Workshop to Discuss Policy-Relevant Science to Inform EPA’s Review of the Primary and Secondary National Ambient Air Quality Standards (NAAQS) for the Effect of Particulate Matter (PM)” [Research Triangle Park, NC, at US EPA - February 2015]***

Invited External Panelist

**State and University Level**

***Service and Outreach to UNC and NC***

Executive Advisory Committee (EAC) Member of the NC PFAS Testing Network – July 2022-Present

Director of the NC PFAS Testing Network – June 2018 – June 2021

Co-Director of Undergraduate Studies – Fall 2017 – Summer 2021

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Undergraduate Core Public Health Curriculum Workgroup – Fall 2017 - Present

Served on curriculum committee for Curriculum for the Environment and Ecology (CEE)

Served on MSEE Faculty Committee

Presented a talk titled “Trees, Volatile Organic Compounds, and Fine Organic Aerosol Formation: Implications for Air Quality, Climate, and Public Health in the Southeastern U.S.” at the Workshop titled “Air Quality Concerns in a Changing Climate: Engaging Students with Atmospheric Science Research (At UNC-Chapel Hill on September 13, 2014).” This teacher workshop was made possible by a NASA Innovations in Climate Education (NICE) Award. There were 28 high school science teachers present at the workshop from across the state of NC.