Gabriel Isaacman-VanWertz

Associate Professor, Charles E. Via Department of Civil and Environmental Engineering
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EDUCATION AND TRAINING

Massachusetts Institute of Technology	Civil and Environ. Eng.	Postdoctoral Fellow 2015-2016
University of California, Berkeley	Envi. Sci., Policy, and Manag.	Ph.D. 2014
Wesleyan University	Chemistry; Earth & Envi. Sci.	B.A. 2007

APPOINTMENTS

Associate professor, Department of Civil and Environmental Engineering, Virginia Tech, 2022-present.
Assistant professor, Department of Civil and Environmental Engineering, Virginia Tech, 2017-2022.

RESEARCH AWARDS

Major funded projects

- *IARPA: "*SPOCK: Size-segregated Particle Odor Chromatographic Kernel." Co-PI. *2023-2026*.
- *USDA: "*Mapping two common arthropod pests from airborne environmental DNA metabarcoding." Co-PI, $587,749. *2023-2026*.
- *Wellcome Leap: "*Personal Real-time Sensor for SARS-CoV-2 in the Indoor Environment." Co-PI, $947,740. *2022-2023*.
- *EPA, STAR: "*Enabling Real-Time, Low-Cost Measurement of Hazardous Air Pollutants." PI, $800,000. *2022-2025*
- *DOE, Early Career Program: "*Parameterizing wet removal of aerosol-forming oxygenated gases and its regional and global impacts." PI, $750,000. *2021-2026*
- *NSF, AGS: "*CAREER: Understanding the fate of reactive organic compounds in the atmosphere. National Science Foundation." PI, $508,418. *2021-2026*
- *NSF, MRI: "*MRI: Acquisition of a Chemical Ionization Mass Spectrometer for Measuring Organic Compounds at the Interface of Earth's Systems." PI, $715,976. *2021-2024*
- *NOAA, SBIR/STTR:* "Automated Monitoring of VOCs with a Compact Gas Chromatography-Proton Transfer Reaction Mass Spectrometer (GC-mVocus)." Co-PI, $650,000. *2020-2023.*
- *NSF, AGS: "*Collaborative Research: Understanding ozone-ecosystem controls and feedbacks across landscapes through leaf- and canopy-scale measurements." PI, $295,577 (additional $366,620 to UVA). *2018-2021*
- *Alfred P. Sloan Foundation:* "Improved chemical characterization of indoor organics by isomer-resolved spectrometry". PI, $312,170. *2018-2021.*
- *NOAA, SBIR/STTR:* "Automated peak fitting and analysis software for advanced gas chromatography and mass spectrometer systems." Co-PI, $519,977. *2017-2020.*
- *DOE, SBIR/STTR: "*Low-cost, time-resolved chemical characterization of atmospheric aerosols. US Department of Energy." PI, $1,322,575. *2018-2022*.
- *VA Dept. of Environ. Quality: "*Evaluation of Impacts Resulting from Home Heating Oil Tank Discharges. VA Department of Environmental Quality." Co-PI, $173,201, *2017-2018.*

AWARDS AND FELLOWSHIPS

2025 Anthony and Catherine Moraco Endowed Faculty Fellowship in Civil and Environmental Eng.
2025 Walter L. Huber Research Prize, American Society of Civil Engineers
2024 VT College of Engineering Dean's Fellow
2023 Kenneth T. Whitby Award, American Association of Aerosol Research
2023 Fulbright U.S. Scholar Award (Ecuador)
2023 Atmospheric Chemistry and Physics Outstanding Reviewer Award
2022 VT Engineering Dean's Award of Excellence: Faculty Fellow

2021 Department of Energy Early Career Program Award recipient
2021 NSF CAREER Award recipient
2020 VT Engineering Dean's Award of Excellence: Outstanding New Assistant Professor
2016 Sheldon K. Friedlander Award, American Association of Aerosol Research
2014 NSF Atmospheric and Geospace Sciences Postdoctoral Research Fellowship
2013 Acceptance to Atmospheric Chemistry Colloquium for Emerging Senior Scientists (ACCESS)
2012 Atmospheric Geophysical Union Outstanding Student Paper Award
2010 NSF Graduate Student Research Fellowship
2010 EPA STAR Fellowship

SERVICE

- Service to the university Global Change Center as: member of the Interfaces of Global Change Curriculum Committee (2022-2023), co-chair of the Interfaces of Global Change Curriculum Committee (2024-present), faculty affiliate (2020-present)
- Service to the department Environmental and Water Resources (EWR) program area as: seminar coordinator (2022-2023), member of the graduate admissions committee (2019-2023)
- Service to American Association of Aerosol Research as: Co-chair and Chair of the Aerosol Chemistry Working Group (2018-2020), member and editor of the Newsletter Committee (2018-2021), faculty advisor of the Virginia Tech student chapter (2019-present), session chair for the annual Fall Meeting (every year, 2015-present), session/symposium organizer for the annual Fall Meeting (2019, 2020, 2023)
- Session/symposium organizer for the American Geophysical Union Fall Meeting (2017)
- Member of the scientific committee, International Conference on Carbonaceous Particles in the Atmosphere (2023)
- Member of the Data Infrastructure Advisory Committee for the Alfred P. Sloan Foundation Chemistry of the Indoor Environment Program (2018-2020)
- Regular journal reviewer, including: Atmospheric Chemistry and Physics, Environmental Science and Technology, Journal of Geophysical Research
- Proposal reviewer for: National Oceanic and Atmospheric Administration, Alfred P. Sloan Foundation, National Science Foundation, Department of Energy
- Participant in annual faculty meet and greet activities through the VT Center for the Enhancement of Engineering Diversity, including the TechGirls program and the Black Engineering Excellence at Virginia Tech program
- Member of approximately 40 graduate student committees and ~30 qualifying exam committees
- Serve on 1 faculty hiring committee
- Collaborator with the Science Museum of Western Virginia in the development of an exhibit for the museum floor and in the development of online learning materials.
- Provided 10 radio and television interviews on subjects relevant to air quality.

TEACHING

Average teaching evaluations: 5.38/6

Undergraduate:

CEE 3104 – Intro. to Environmental Engineering (2018, 2019, S 2021, F 2021, F 2022, F 2024, S 2025)

Graduate:

All developed by G. Isaacman-VanWertz

CEE 5150 – Atmospheric Chemistry (2017, 2020, 2022, 2025)
CEE 5120 – Emerging Tools for Environmental Field Research (2019, 2020, 2023)
CEE 5984 – Atmospheric Measurement Techniques (2018)

ADVISING

Current

Christos Stamatis, Postdoctoral Researcher
Vikas Goel, Research scientist

Talha Jubair, Ph.D.
Beatrice Kyerematen, Ph.D.
Sina Tayebbi Nia, Ph.D.

Nazifa Sayeed, M.S.
Shallon Jozi, M.S.

Amira Hansch, B.S.
Clara McMullin, B.S.

Alumni

Chenyang Bi, Postdoctoral researcher – current: Scientist, Aerodyne Research Inc.

Sungwoo Kim, Ph.D. 2024
Purushottam Kumar, Ph.D. 2024 – current: Postdoc, California Institute of Technology
Namrata Panji, Ph.D. 2024 – current: Scientist, South Coast Air Quality Management District, CA
Graham Frazier, Ph.D. 2023 – current: Postdoc, University of Michigan
James Hurley, Ph.D. 2022 – current: Lab manager, Virginia Tech
Deborah McGlynn, Ph.D. 2022 – current: Postdoc, NIST

Alexandra DiBernardi, M.S. 2024 – current: Research Associate, Virginia Tech, VA
Muskan Amin, M.S. 2024 (also MAOP summer intern) – current: Staff Engineer, Kennedy Jenks, Virginia Beach, VA
Raina Lenear, M.S. 2023 (New Horizons Graduate Scholar)
Asmita Deshmukh, M.S. 2019 – current: RK&K Civil Engineering, Roanoke, VA
Xin Lu, M.S. 2018 – current: Hebei Nuodun Environmental S&T Co., Ltd, China

Alejandra Caceres, B.S. 2022 (also MAOP summer intern)
Mary Tovillo, B.S. 2019 (also MAOP summer intern)

Anum Khan, 2024 summer intern from Multicultural Academic Opportunities Program
Allahna Grant, 2018 summer intern from Multicultural Academic Opportunities Program
Monica Gurung, 2018 summer intern from Multicultural Academic Opportunities Program

PUBLICATIONS

Summary statistics

Peer-reviewed publications: 75
Total citations: 5,956 *(as reported by Google Scholar)*
h-index: 36

Member of the Isaacman-VanWertz group in **bold***

2025

75. Kormos, D., **G. Isaacman-VanWertz**, J. A. Ogejo, A. Pruden, and L. C. Marr: Quantifying Dissemination of Antibiotic Resistance Genes in Air from a Dairy Farm and Swine Farm. *ACS ES&T Air*, 8 (2), 1552-1564, doi: 10.1021/acsestair.5c00055, 2025.

74. **Bi, C.*** and **G. Isaacman-VanWertz**: Formation of late-generation atmospheric compounds inhibited by rapid deposition. *Nature Geoscience*, doi: 10.1038/s41561-025-01650-2, 2025.

73. **Kim, S.***, L. D. Yee, A. H. Goldstein, and **G. Isaacman-VanWertz**: Systematic characterization of unknown compounds via dimensionality reduction of time series. *Aerosol Science and Technology*, 1-15, doi: 10.1080/02786826.2024.2445634, 2025.

2024

72. **Panji, N. S.***, **D. F. McGlynn***, L. E. R. Barry, T. M. Scanlon, M. T. Lerdau, S. E. Pusede, and **G. Isaacman-VanWertz**: Constraining light dependency in modeled emissions through comparison to observed biogenic volatile organic compound (BVOC) concentrations in a southeastern US forest, *Atmospheric Chemistry and Physics*, 24, 12495–12507, doi: 10.5194/acp-24-12495-2024, 2024.

71. Marr, L., C. D. Cappa, W. P. Bahnfleth, T. H. Bertram, R. L. Corsi, M. J. Ellis, G. P. Henze, **G. Isaacman-VanWertz**, S. L. Miller, T. Pistochini, W. D. Ristenpart, M. E. Vance, and P. J. Vikesland: Toward Clean and Green Buildings. *Journal of Environmental Engineering*, 150 (9), doi: 10.1061/JOEEDU.EEENG-7727, 2024.

70. **Kumar, P.***, **J. F. Hurley**, N. M. Kreisberg, B. Stump, P. Keady, A. Grieshop, and **G. Isaacman-VanWertz**: Development, Demonstration, and Evaluation of Routine Monitoring of Aerosol Carbon, Oxygen, and Sulfur Content. *ACS ES&T Air*, 1 (6), 464-473, doi: 10.1021/acsestair.3c00059, 2024.

69. **Isaacman-VanWertz, G.**, **G. Frazier***, J. Willison, and C. Faiola: Missing Measurements of Sesquiterpene Ozonolysis Rates and Composition Limit Understanding of Atmospheric Reactivity. *Environmental Science and Technology*, 58 (18), 7937-7964, doi: 10.1021/acs.est.3c10348, 2024.

68. Shen, C., X. Yang, J. Thornton, J. Shilling, **C. Bi***, **G. Isaacman-VanWertz**, and H. Zhang: Observation-Constrained Kinetic Modelling of Isoprene SOA Formation in the Atmosphere. *Atmospheric Chemistry and Physics*, 24 (10), 6153-6175, doi: 10.5194/acp-24-6153-2024, 2024.

67. Wang, W., S. Srivastava, A. Garg, C. Xiao, S. Hawks, J. Pan, N. Duggal, **G. Isaacman-VanWertz**, W. Zhou, L. C. Marr, and P. J. Vikesland: Digital Surface-Enhanced Raman Spectroscopy−Lateral Flow Test Dipstick: Ultrasensitive, Rapid Virus Quantification in Environmental Dust. *Environmental Science and Technology*, 58 (11), 4926–4936, doi: 10.1021/acs.est.3c10311, 2024.

66. Chen, W., W. W. Hu, Z. Tao, Y. Cai, M. Cai, M. Zhu, Y. Ye, H. Zhou, H. Jiang, J. Li, W. Song, J. Zhou, S. Huang, B. Yuan, M. Shao, Q. Feng, Y. Li, **G. Isaacman-VanWertz**, H. Stark, D. A. Day, P. Campuzano-Jost, J. L. Jimenez, and X. Wang: Quantitative Characterization of the Volatility Distribution of Organic Aerosols in a Polluted Urban Area: Intercomparison Between Thermodenuder and Molecular Measurements. *Journal of Geophysical Research – Atmospheres*, 129 (4), doi: 10.1029/2023JD040284, 2024.

2023

65. **Panji, N. S.*** and **G. Isaacman-VanWertz**: Inlet for enriching concentrations of reactive organic gases in low sampling flows. *Atmospheric Measurement Techniques*, 16, 4319-4330, doi: 10.5194/amt-16-4319-2023, 2023.

64. **Hurley, J. F.*, A. Caceres*, D. F. McGlynn***, **M. E. Tovillo***, S. Pinar, R. Schürch, K. Onufrevia, and **G. Isaacman-VanWertz**: Portable, low-cost samplers for distributed sampling of atmospheric gases. *Atmospheric Measurement Techniques*, 16, 4681-4692, doi: 10.5194/amt-16-4681-2023, 2023.

63. Zhang, J., J. Liu, X. Ding, H. Xiao, T. Zhang, M. Zheng, M. Choi, **G. Isaacman-VanWertz**, L. Yee, H. Zhang, P. Misztal, A. H. Goldstein, A. Guenther, S. H. Budisulistiorini, J. Surratt, E. Stone, M. Shrivastava, D. Wu, J. Z. Yu, and Q. Ying: New Formation and Fate of Isoprene SOA Markers Revealed by Field Data-Constrained Modeling. *npj Climate and Atmospheric Science*, 6, 69, doi: 10.1038/s41612-023-00394-3, 2023.

62. Franklin, E. B., Yee, L., R.A. Wernis, **G. Isaacman-VanWertz**, N. Kreisberg, R. J. Weber, H. Zhang, B. B. Palm, W. W. Hu, P. Compuzano-Jost, D. A. Day, A. Manzi, P. Artaxo, R. A. F. DeSouza, J. L. Jimenez, S. T. Martin, and A. H. Goldstein: Chemical Signatures of Seasonally Unique Anthropogenic Influences on Organic Aerosol Composition in the Central Amazon. *Environmental Science & Technology*, 57 (15), 6263–6272, 2023.

61. **McGlynn, D. F.***, **G. Frazier***, L. E. R. Barry, M. T. Lerdau, S. E. Pusede, and **G. Isaacman-VanWertz**: Minor contributions of daytime monoterpenes are major contributors to atmospheric reactivity. *Biogeosciences*, 20, 45-55, doi: 10.5194/bg-20-45-2023, 2023.

60. **McGlynn, D. F.*, N. S. Panji*, G. Frazier*, C. Bi*,** and **G. Isaacman-VanWertz**: An autonomous remotely operated gas chromatograph for chemically resolved monitoring of atmospheric volatile organic compounds. *Environmental Science: Atmospheres*, 3, 387-398, doi: 10.1039/D2EA00079B, 2023.

2022

59. **Bi, C.***, and **G. Isaacman-VanWertz**: Estimated timescales for wet deposition of organic compounds as a function of Henry's Law Constant. *Environmental Science: Atmospheres*, 6, 1526-1533, doi: 10.1039/d2ea00091a, 2022.

58. **Kim, S.***, B. M. Lerner, D. T. Sueper, and **G. Isaacman-VanWertz**: Comprehensive detection of analytes in large chromatographic datasets by coupling factor analysis with a decision tree. *Atmospheric Measurement Techniques*, 15, 5061-5075, doi: 10.5194/amt-15-5061-2022, 2022.

57. **Frazier, G.***, **D.F. McGlynn***, L. E. R. Barry, M. T. Lerdau, S. E. Pusede, and **G. Isaacman-VanWertz**: Composition, concentration, and oxidant reactivity of sesquiterpenes in the southeastern U.S. *Environmental Science: Atmospheres*, 2, 1208-1220, doi: 10.1039/D2EA00059H, 2022.

2021

56. **Hurley, J. F.***, E. Smiley, and **G. Isaacman-VanWertz**: Modeled Emission of Hydroxyl and Ozone Reactivity from Evaporation of Fragrance Mixtures. *Environmental Science and Technology,* 55 (23), 15672-15679, doi: 10.1021/acs.est.1c04004, 2021.

55. **McGlynn, D. F***., L. E. R. Barry, M. T. Lerdau, S. E. Pusede, and **G. Isaacman-VanWertz**: Measurement report: Variability in the composition of biogenic volatile organic compounds in a Southeastern US forest and their role in atmospheric reactivity. *Atmospheric Chemistry and Physics,* 21 (20), 15755–15770, doi: 10.5194/acp-21-15755-2021, 2021.

54. **Bi, C.***, J. E. Krechmer, M. R. Canagaratna, and **G. Isaacman-VanWertz**: Correcting bias in log-linear instrument calibrations in the context of chemical ionization mass spectrometry. *Atmospheric Measurement Techniques,* 14 (10), 6551-6560, doi: 10.5194/amt-14-6551-2021, 2021.

53. **Bi, C.***, J. E. Krechmer, **G. O. Frazier***, W. Xu, A. T. Lambe, M. S. Claflin, B. M. Lerner, J. T. Jayne, D. R. Worsnop, M. R. Canagaratna, and **G. Isaacman-VanWertz**: Quantification of isomer-resolved iodide CIMS sensitivity and uncertainty using a voltage scanning approach. *Atmospheric Measurement Techniques*, 14 (10), 6835–6850, doi: 10.5194/amt-14-6835-2021, 2021.

52. Coggon, M. M., G. Gkatzelis, B. McDonald, J. Gilman, S. Mc Keen, J. Peischl, M. Li, **J. F. Hurley***, K. Aikin, T. Campos, F. Moshary, **G. Isaacman-VanWertz**, T. Berkoff, M. Trainer, and C. Warneke: Volatile chemical product emissions enhance ozone and modulate urban chemistry. *Proceedings of the National Academies of Science*. 118 (32), e2026653118, doi: 10.1073/pnas.2026653118, 2021.

51. Ye, Q., M. Goss, **G. Isaacman-VanWertz**, A. Zaytsev, P. Massoli, C. Lim, P. Croteau, M. Canagaratna, D. Knopf, F. Keutsch, C. Heald, and J. Kroll: Organic sulfur products and peroxy radical

isomerization in the OH oxidation of dimethyl sulfide. *ACS Earth and Space Chemistry*, 5 (8), 2013–2020, doi: 10.1021/acsearthspacechem.1c00108, 2021.

50. **Bi, C.***, J. E. Krechmer, **G. O. Frazier***, W. Xu, A. T. Lambe, M. S. Claflin, B. M. Lerner, J. T. Jayne, D. R. Worsnop, M. R. Canagaratna, and **G. Isaacman-VanWertz**: Coupling a gas chromatograph simultaneously to a flame ionization detector and chemical ionization mass spectrometer for isomer-resolved measurements of particle-phase organic compounds. *Atmospheric Measurement Techniques,* 14, 3895-3907, doi: 10.5194/amt-14-3895-2021, 2021.

49. **Isaacman-VanWertz, G**. and B. Aumont: The impact of structure on the estimation of atmospherically relevant physicochemical parameters. *Atmospheric Chemistry and Physics*, 21, 6541-6563, doi: 10.5194/acp-21-6541-2021, 2021.

48. **Lu, X.***, E. Weiner, E. Smiley, M. Widdowson, and **G. Isaacman-VanWertz**: Detailed chemical characterization of the composition and variability of soil gas at remediated residential heating oil discharges. *Journal of Hazardous Materials*, 413, 12537211, doi: 10.1016/j.jhazmat.2021.125372, 2021

2020

47. Heald, C. J., J. de Gouw, **G. Isaacman-VanWertz**, A. H. Goldstein, A. B. Guenther, P. L. Hayes, W. W. Hu, J. L. Jiminez, F. N. Keutsch, A. R. Koss, P. K. Misztal, B. Rappenglück, J. M. Roberts, P. S. Stevens, R. A. Washenfelder, C. Warneke, and C. J. Young: Contrasting Reactive Carbon Observations in the Southeast United States (SOAS) and Southern California (CalNex). *Environmental Science & Technology*, 54 (23), 14923-14935, 2021

46. **Isaacman-VanWertz, G.**, **X. Lu*,** E. Weiner, E. Smiley, and M. Widdowson: Characterization of hydrocarbon groups in complex mixtures using gas chromatography with unit-mass resolution electron ionization mass spectrometry. *Analytical Chemistry*, 92(18), 12481-12488, 2020.

45. **Hurley, J. F.*,** N. M. Kreisberg, B. Stump, **C. Bi***, **P. Kumar***, S. V. Hering, P. Keady, and **G. Isaacman-VanWertz**: A new approach for measuring the carbon and oxygen content of atmospherically-relevant compounds and mixtures. *Atmospheric Measurement Techniques*, 13, 4911-4925, 2020.

44. Yee, L., **G. Isaacman-VanWertz**, R.A. Wernis, N.M. Kreisberg, M. Glasius, M. Riva, J.D. Surratt, S.S. de Sá, S.T. Martin, M.L. Alexander, B.B. Palm, W.W. Hu, P. Campuzano-Jost, D.A. Day, J.L. Jimenez, Y. Liu, P.K. Misztal, P. Artaxo, J. Viegas, A. Manzi, R.A. F. de Souza, E.S. Edgerton, K. Baumann, and A.H. Goldstein: Natural and anthropogenically-influenced isoprene oxidation in the Southeastern U.S.A. and central Amazon. *Environmental Science & Technology*, 54, 5980-5991, doi: 10.1021/acs.est.0c00805, 2020.

2019

43. de Sá, S. S., L.V. Rizzo, B.B. Palm, P. Campuzano-Jost, D.A. Day, L.D. Yee, R. Wernis, **G. Isaacman-VanWertz**, J. Brito, S. Carbone, Y.J. Liu, A. Sedlacek, S. Springston, A.H. Goldstein, H.M.J. Barbosa, M.L. Alexander, P. Artaxo, J.L. Jimenez, and S.T. Martin, Contributions of biomass-burning, urban, and biogenic emissions to the concentrations and light-absorbing properties of particulate matter in central Amazonia during the dry season. *Atmospheric Chemistry and Physics*, 19, 7973-8001, doi:10.5194/acp-19-7973-2019, 2019.

42. Shrivastava, M., M.O. Andreae, P. Artaxo, H.M.J. Barbosa, L.K. Berg, J. Brito, J. Ching, R.C. Easter, J. Fan, J.D. Fast, Z. Feng, J.D. Fuentes, M. Glasius, A.H. Goldstein, E.G. Alves, H. Gomes, D. Gu, A. Guenther, S.H. Jathar, S. Kim, Y. Liu, S. Lou, S.T. Martin, V.F. McNeill, A. Medeiros, S.S. de Sá, J.E. Shilling, S.R. Springston, R.A.F. Souza, J.A. Thornton, **G. Isaacman-VanWertz**, L.D. Yee, R. Ynoue, R.A. Zaveri, A. Zelenyuk, and C. Zhao: Urban pollution greatly enhances formation of natural aerosols

over the Amazon rainforest, *Nature Communications*, 10, 1046, doi:10.1038/s41467-019-08909-4, 2019.

41. Eichler, C. M. A., J. Cao, **G. Isaacman-VanWertz**, and J. Little, Modeling the formation and growth of organic films on indoor surfaces, *Indoor Air*, https://doi.org/10.1111/ina.12518, 29,17-29, 2019.

2018

40. Glasius, M., M. S. Bering, L. Yee, S. S. de Sá, **G. Isaacman-VanWertz**, R. Wernis, H. M.J. Barbosa, L. Alexander, B. B. Palm, W. Hu, P. Campuzano-Jost, D. Day, J. Jimenez, M. Shrivastava, S. T. Martin and A. H. Goldstein, Organosulfates in aerosols downwind of an urban region in central Amazon, *Environmental Science: Processes & Impacts*, https://doi.org/10.1039/C8EM00413G, in press, 2018.

39. de Sá, S. S., B. B.Palm, P. Campuzano-Jost, D.A. Day, W. Hu, **G. Isaacman-VanWertz**, L.D. Yee, J. Brito, S. Carbone, I.O. Ribeiro, G.G. Cirino, Y.J. Liu, R. Thalman, A. Sedlacek, A. Funk, C. Schumacher, J.E. Shilling, J. Schneider, P. Artaxo, A.H. Goldstein, R.A.F. Souza, J. Wang, K.A. McKinney, H. Barbosa, M.L. Alexander, J.L. Jimenez, and S.T. Martin, Urban influence on the concentration and composition of submicron particulate matter in central Amazonia, *Atmospheric Chemistry and Physics*, 18, 12185–12206, https://doi.org/10.5194/acp-2018-172, 2018.

38. Yee, L.D., **G. Isaacman-VanWertz**, R.A. Wernis, M. Meng, V. Rivera, N.M. Kreisberg, S.V. Hering, M.S. Bering, M. Glasius, M.A. Upshur, A.G. Bé, R.J. Thomson, F.M. Geiger, J.H. Offenberg, M. Lewandowski, I. Kourtchev, M. Kalberer, S. de Sá, S.T. Martin, M.L. Alexander, B.B. Palm, W.W. Hu, P. Campuzano-Jost, D.A. Day, J.-L. Jimenez, Y. Liu, K.A. McKinney, P. Artaxo, J. Viegas, A. Manzi, M.B. Oliveira, R. de Souza, L.A.T. Machado, K. Longo, and A.H. Goldstein: Observations of sesquiterpenes and their oxidation products in central Amazonia during the wet and dry seasons, *Atmospheric Chemistry and Physics*, 18, 10433-10457, doi:10.5194/acp-2018-191, 2018.

37. **Isaacman-VanWertz, G**., P. Massoli, R. O'Brien, C.Y. Lim, J. P. Franklin, J.A. Moss, J.F. Hunter, J.B. Nowak, M.R. Canagaratna, P.K. Misztal, C. Arata, J.R. Roscioli, S.T. Herndon, T.B. Onasch, A.T. Lambe, J.T. Jayne, L. Su, D.A. Knopf, A.H. Goldstein, D.R. Worsnop, and J.H. Kroll: Chemical evolution of atmospheric organic carbon over multiple generations of oxidation, *Nature Chemistry,* 10, 462-468, doi:10.1038/s41557-018-0002-2, 2018.

36. de Gouw, J.A., J.B. Gilman, S.-W. Kim, S. Alvarez, S. Dusanter, M. Graus, S.M. Griffith, **G. Isaacman-VanWertz**, W.C. Kuster, B.L. Lefer, B.M. Lerner, B.C. McDonald, B. Rappenglück, J.M. Roberts, P.S. Stevens, J. Stutz, R. Thalman, P.R. Veres, R. Volkamer, C. Warneke, R.A. Washenfelder and C.J. Young: Chemistry of volatile organic compounds in the Los Angeles basin: formation of oxygenated compounds and determination of emission ratios, *Journal of Geophysical Research Atmospheres*, 123, 1–22, doi:10.1002/2017JD027976, 2018.

35. McDonald, B.C., J.A. de Gouw, J.B. Gilman, S.H. Jathar, A. Akherati, C.D. Cappa, J.-L. Jimenez, J. Lee-Taylor, P.L. Hayes, S.A. McKeen, Y.Y. Cui, S.-W. Kim, D.R. Gentner, **G. Isaacman-VanWertz**, A.H. Goldstein, R.A. Harley, G.J. Frost, J.M. Roberts, T.B. Ryerson, and M. Trainer: Volatile chemical products emerging as largest petrochemical source of urban organic emissions, *Science*, 359, 760–764, 2018.

34. Zhang, H., L.D. Yee, B.H. Lee, M.P. Curtis, D.R. Worton, **G. Isaacman-VanWertz**, J.H. Offenberg, M. Lewandowski, T.E. Kleindienst, M.R. Beaver, A.L. Holder, W.A. Lonneman, K.S. Docherty, M. Jaoui, H.O.T. Pye, W.W. Hu, D.A. Day, P. Campuzano-Jost, J.-L. Jimenez, H. Guo, R.J. Weber, J.A. de Gouw, A.R. Koss, E.S. Edgerton, W.H. Brune, C. Mohr, F.D. Lopez-Hilfiker, A. Lutz, N.M. Kreisberg, S.R. Spielman, S.V. Hering, K.R. Wilson, J.A. Thornton, and A.H. Goldstein: Monoterpenes are the largest source of summertime organic aerosol in the southeastern United States, *Proceedings of the National Academy of Sciences*, 115 (9), 2038-2043, doi:10.1073/pnas.1717513115, 2018.

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4. **Isaacman, G**., K.R. Wilson, A.W.H. Chan, D.R. Worton, J.R. Kimmel, T. Nah, T. Hohaus, M. Gonin, J.H. Kroll, D.R. Worsnop, and A.H. Goldstein: Improved resolution of hydrocarbon structures and constitutional isomers in complex mixtures using gas chromatography-vacuum ultraviolet-mass spectrometry, *Analytical Chemistry*, 84 (5), 2335 2342, 2012.

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2. **Isaacman, G.**, N.M. Kreisberg, D.R. Worton, S.V. Hering, and A.H. Goldstein: A versatile and reproducible automatic injection system for liquid standard introduction: application to in-situ calibration, *Atmospheric Measurement Tech*niques, 4, 1937-1942, doi:10.5194/amt-4-1937-2011, 2011.

1. **Isaacman, G.**, D.R. Worton, N.M. Kreisberg, C.J. Hennigan, A.P. Teng, S.V. Hering, A.L. Robinson, N.M. Donahue, and A.H. Goldstein: Understanding evolution of product composition and volatility distribution through in-situ GC × GC analysis: a case study of longifolene ozonolysis, *Atmospheric Chemistry and Physics*, 11, 5335-5346, doi:10.5194/acp-11-5335-2011, 2011.

Academic work:

Ph.D. Dissertation: **Isaacman, G.** Enabling the identification, quantification, and characterization of organics in complex mixtures to understand atmospheric aerosols. University of California, Berkeley. 2014.

B.A. Thesis: **Isaacman, G.** Synthesis of Triarylamine Catalysts for Electrochemical Oxidation. Wesleyan University. 2009.

PATENTS, DISCLOSURES, AND SOFTWARE

1. Principal developer: “TAG Explorer and iNtegration (TERN)”. A substantial data analysis package that widely adopted within the atmospheric chemistry community for the analysis of gas chromatography data. Built within a programming environment used broadly within the community (Igor Pro). Free to download, use, and customize.
   Available at https://sites.google.com/site/terninigor

2. “Volatility-Resolved Chemical Characterization of Airborne Particles”
   Inventors: Gabriel Isaacman-VanWertz, Nathan M. Kreisberg, Susanne V. Hering.
   Assignees: Aerosol Dynamics Inc., Virginia Polytechnic Institute and State University
   US Patent Number 11,733,148

3. "Apparatus for Enriching the Concentration of Trace Components in an Air Flow"
   Inventor: Gabriel Isaacman-VanWertz
   Assignee: Virginia Polytechnic Institute and State University
   Patent pending, application filed February 2021 (US 63/152,043)

IN THE PUBLIC PRESS

Reuben, A. and Isaacman, G. Soundscapes of Smog: Researchers Let You Hear the Pollution of Cities (Literally). *The Atlantic*, 2012. Available online at: http://www.theatlantic.com/technology/archive/2012/09/soundscapes-of-smog-researchers-let-you-hear-the-pollution-of-cities-literally/262152.

Isaacman, G. Lessons from Air Pollution Past. *Sage Magazine*, 2012. Available online at: http://www.sagemagazine.org/lessons-from-air-pollution-past/

PRESENTATIONS

Member of the Isaacman-VanWertz group in **bold***

Invited

17. Gordon Research Conference on Atmospheric Chemistry, 2025. "Predicting how shifts in emissions might change the fate and removal of reactive organic carbon."
16. ***Plenary***. Department of Energy Atmospheric System Research PI Meeting, 2025. "Combining ARM observations and chemically explicit models to understand the impacts of deposition."
15. U.S. Environmental Protection Agency, Atmospheric & Environmental Systems Modeling Division Seminar, 2025. "Routine monitoring of aerosol composition – new tools to address an overlooked need."
14. Washington University in Saint Louis, Center for Aerosol Science and Engineering (CASE) Seminar, 2024. "What goes up must come down: competing fates of organic molecules in the air."
13. Universidad San Francisco de Quito, Coloquio Politécnico, 2023. "Reactive carbon in the atmosphere and the formation of air pollution."
12. US Environmental Protection Agency, Air Sensors Quality Assurance Workshop, 2023. "Tackling the selectivity issues in low-cost VOC sensors."
11. National Center for Atmospheric Research, Atmospheric Chemistry Observations & Modeling (ACOM) seminar, 2022. "Rain or Shine: examining the competition between deposition and oxidation in the fate of atmospheric organics."
10. University of California, Berkeley, Atmospheric Sciences Seminar, 2021. "Isomers in the atmosphere: emissions, transformations, and fate."
9. North Carolina State University, Civil, Construction and Environmental Engineering Seminar, 2021. "A little goes a long way: the outsize influence of small chemical differences in a complex atmosphere."
8. Michigan Technological University, Environmental Engineering Graduate Seminar, 2021. "How do differences in chemical structure change the atmospheric impacts of a molecule?"
7. Frontiers of Atmospheric Chemistry Sciences Seminar, 2020. "Understanding the impacts of molecular structure on the fate of atmospheric organics." (*multi-institution, 300 attendees*)
6. Georgia Tech, Chemical & Biomolecular Engineering Seminar, 2020. "How important is molecular structure in the atmospheric chemistry and impacts of organic compounds?"
5. University of Virginia, Atmospheric Sciences Seminar, 2018. "Measuring the complex mixture of organic compounds in the atmosphere to understand the lifecycle and fate of emissions."

4. U.S. Environmental Protection Agency, 2016. “Of molecules and men: Particle- and gas-phase atmospheric composition at anthropogenically-influenced forested sites.”

3. NOAA, Chemical Sciences Division Seminar 2015. “Characterizing the composition and oxidation of particles and atmospheric mixtures using GC/MS.”

2. Aerodyne Research, Inc., 2013. “Constraining chemistry in biogenic environments through GC/MS: TAG, Tracers, and Total Taxonomy.”

1. Drexel University, Chemistry Seminar, 2013. “Oxygenated biogenic organics in ambient aerosol: Toward a complete picture of formation and oxidation.”

Conference Platform

55. American Geophysical Union Annual Fall Meeting 2024. “Formation of Secondary Organic Aerosols from Simulated Prescribed Fires and Wildfires: Oxidation of Evaporated Primary Organic Aerosols and Volatile Organic Compounds.” Presented by N. Ng

54. American Association of Aerosol Research Annual Meeting 2024. “Assessing the Removal of Particles by Precipitation and Quantifying Their Wet Deposition Rates.” Presented by **C. Stamatis***

53. American Association of Aerosol Research Annual Meeting 2024. “Rapid Deposition Prevents the Formation of Late-Generation Products and Aerosols in Real-World Atmospheres.” Presented by **C. Bi***

52. American Association of Aerosol Research Annual Meeting 2024. “Measurement of Airborne DNA to Detect Arthropods Using Portable Particle Sampling.” Presented by **S. Jozi***

51. Entomological Society of America 2023. “Sampling and mapping airborne arthropod eDNA using back-projection.” Presented by R. Schuerch

50. International Aerosol Modeling Algorithms Conference 2023. “Comprehensive Accounting for Reactive Organic Carbon Emissions from Residential Wood Combustion Processes.” Presented by B. Murphy

49. American Geophysical Union Fall Meeting 2023. “Multi-year monitoring of speciated BVOCs reveal temporal variability with implications for atmospheric reactivity and emission modeling.” Presented by **D. McGlynn***

48. International Conference on Carbonaceous Particles in the Atmosphere 2023. “Ecological drivers of emissions impact aerosol formation potential and properties.” Presented by **G. Isaacman-VanWertz***

47. International Conference on Carbonaceous Particles in the Atmosphere 2023. “Modeled impact of deposition on the oxidation pathways of common reactive precursors.” Presented by **C. Bi***

46. American Association of Aerosol Research Annual Meeting 2023. “Modeled Impact of Deposition on the Oxidation Pathways of Common Reactive Precursors.” Presented by **C. Bi***

45. American Association of Aerosol Research Annual Meeting 2023. “Volatility Distribution of Organic Aerosols using ChemSpot Instrument.” Presented by **P. Kumar***

44. American Association of Aerosol Research Annual Meeting 2023. “Atmospheric Reactivity and Aerosol Formation from Observed Versus Modeled BVOCs in a Southeastern US Forest.” Presented by **N. Panji***

43. American Association of Aerosol Research Annual Meeting 2023. “Antibiotic Resistance Genes in Air Near Farms.” Presented by D. Kormos

42. American Association of Aerosol Research Annual Meeting 2022. “Validation and Demonstration of the “Chemspot” Instrument for Measuring Aerosol Composition.” Presented by **P. Kumar***

41. American Association of Aerosol Research Annual Meeting 2022. “Concentration of Terpenoid Oxidation Products in Aerosol in the Southeastern U.S. and the Role of Different BVOC Classes.” Presented by **G. Frazier***
40. American Association of Aerosol Research Annual Meeting 2022. “Modeled Impact of Deposition on the Oxidation Pathways of Common Reactive Precursors.” Presented by **G. Isaacman-VanWertz***
39. American Association of Aerosol Research Annual Meeting 2022. “Portable, Low-cost Samplers for Distributed Sampling of Aerosols and Reactive Gases.” Presented by **J. Hurley***
38. American Association of Aerosol Research Annual Meeting 2022. “Estimated Timescales for Wet Deposition of Organic Compounds as a Function of Henry’s Law Constants.” Presented by **C. Bi***
39. CIMS Users Meeting 2021. “Correcting Bias in the Estimation of Chemical Ionization Mass Spectrometer Sensitivity.” Presented by **G. Isaacman-VanWertz***
38. American Association of Aerosol Research Annual Meeting 2021. “Connecting Composition to Reactivity for Fragrances and Their Emissions.” Presented by J**. Hurley***
37. American Association of Aerosol Research Annual Meeting 2021. “Quantifying uncertainty in electron ionization mass spectrometry as a universal detector for individual atmospheric organics.” Presented by **C. Bi***
36. American Association of Aerosol Research Annual Meeting 2021. “Development and performance evaluation of “Chemspot” instrument for the characterization of organic aerosol.” Presented by **P. Kumar***
35. American Association of Aerosol Research Annual Meeting 2021. “Examining the Competition Between Oxidation and Deposition in the Fate of Reactive Organic Carbon.” Presented by G**. Isaacman-VanWertz***
34. American Association of Aerosol Research Annual Meeting 2021. “Temporal trends in the emissions and impacts of monoterpenes in the southeastern U.S. demonstrate the dominant influence of low-concentration, highly reactive compounds.” Presented by **D. McGlynn***
33. American Association of Aerosol Research Annual Meeting 2021. “Influence of Structure and Functionality on Uptake of Semivolatile Organic Compounds to Surfaces.” Presented by **G. Frazier***
32. American Association of Aerosol Research Annual Meeting 2021. “Enriching inlet for improving sensitivity and level of detection of reactive organic gases by an order of magnitude in sccm-level flows.” Presented by **N. Panji***
31. American Association of Aerosol Research Annual Meeting 2021. “New insights into complex atmospheric chromatograms enabled by advanced data processing techniques.” Presented by **S. Kim***
30. American Association of Aerosol Research Annual Meeting 2021. “Chemical Signatures of Fire and Urban Influenced Secondary Aerosol Formation in the Central Amazon.” Presented by E. Barnes
29. American Institute of Chemical Engineers Annual Meeting 2021. “Factors impacting seasonal variability of biosphere-atmosphere exchange of biogenic volatile organic compounds in the southeastern U.S.” Presented by D**. McGlynn***
28. International Global Atmospheric Chemistry Science Conference 2021. “Development of “Chemspot” instrument for the characterization of organic aerosol.” Presented by **P. Kumar***
27. International Global Atmospheric Chemistry Science Conference 2021. “Connecting seasonal variability in monoterpene concentrations to features in the biosphere of a southeastern U.S. forest.” Presented by **D. McGlynn***
26. International Global Atmospheric Chemistry Science Conference 2021. “Examining the Competition Between Oxidation and Deposition in the Fate of Reactive Organic Carbon.” Presented by **G. Isaacman-VanWertz***

25. American Geophysical Union Annual Fall Meeting 2020. “Coupling a gas chromatograph simultaneously to a flame ionization detector and chemical ionization mass spectrometer for isomer-resolved quantification of particle-phase organic compounds.” Presented by **C. Bi***

24. American Geophysical Union Annual Fall Meeting 2020. “Coupling a Gas Chromatograph Simultaneously to a Flame Ionization Detector and Chemical Ionization Mass Spectrometer for Isomer-Resolved Quantification of Particle-Phase Organic Compounds.” Presented by **D. McGlynn***

23. American Geophysical Union Annual Fall Meeting 2020. “Laboratory investigation of dimethyl sulfide oxidation: Comprehensive product characterization, peroxy radical isomerization, and implications for sulfur distribution.” Presented by Q. Ye

22. American Association of Aerosol Research Annual Meeting 2020. “Isomer-resolved Quantification of Particle-phase Organic Compounds Using a Coupled GC-CIMS/FID” Presented by **C. Bi***

21. American Association of Aerosol Research Annual Meeting 2020. “Variability in the Composition and Chemical Impacts of Biogenic Volatile Organic Compounds in the Southeastern U.S.” Presented by **D. McGlynn***

20. American Association of Aerosol Research Annual Meeting 2019. “Laboratory Evaluation of Organic Aerosol Chemical Composition and Partitioning Measurements Obtained from High-Resolution Mass Spectrometers with Different Soft Ionization Schemes.” Presented by M. Canagaratna

19. American Association of Aerosol Research Annual Meeting 2019. “Isomer-resolved Chemical Characterization of the Particle-phase Oxidation Products of Indoor Emissions Using Gas Chromatography-Chemical Ionization Mass Spectrometry.” Presented by **C. Bi***

18. American Association of Aerosol Research Annual Meeting 2019. “A New Method for Robust, Moderate-Cost Measurement of Oxygen, Carbon, and Sulfur Content of Organic Compounds and Mixtures.” Presented by **G. Isaacman-VanWertz**

17. Gordon Research Conference – Atmospheric Chemistry 2019. “A Human Forest in New York City and Implications on Urban Air Quality.” Presented by B. McDonald

16. American Association of Aerosol Research Annual Meeting 2018. “Formula vs. Structure: Impacts of Isomers on Interpretation, Calibration, and Parameterization of Atmospheric Mass Spectrometric Data.” Presented by **G. Isaacman-VanWertz**

15. American Association of Aerosol Research Annual Meeting 2017. “Efficient and Improved Processing of Chromatographic Data Using Peak Fitting and Deconvolution.” Presented by **G. Isaacman-VanWertz**

14. American Association of Aerosol Research Annual Meeting 2017. “Secondary Organic Aerosol Formation from Ambient Air in an Oxidation Flow Reactor at GoAmazon2014/5.” Presented by B.B. Palm

13. American Association of Aerosol Research Annual Meeting 2017. “What Aerosol Water do Organic Compounds See?” Presented by H.O.T. Pye

12. American Association of Aerosol Research Annual Meeting 2017. “Monoterpene Oxidation Products Dominate Organic Aerosol Mass in Centreville, Alabama during the SOAS Field Campaign.” Presented by H. Zhang

11. American Geophysical Union Fall Meeting 2017. “A field-deployable GC-EI-HRTOF-MS for in situ characterization of volatile organic compounds.” Presented by B. Lerner

10. American Geophysical Union Fall Meeting 2017. “Anthropogenic Emissions Change the Amount and Composition of Organic PM1 in Amazonia.” Presented by S.S. de Sá

9. American Association of Aerosol Research Annual Meeting 2016. “Comprehensive Measurements of Gas- and Particle-phase Organic Carbon Formed in the Multigenerational Oxidation of Biogenic Hydrocarbons.” Presented by **G. Isaacman-VanWertz**

8. International Global Atmospheric Chemistry Science Conference 2016. “Tracking the evolution of all carbon in the multigenerational oxidation of biogenic organic compounds” at Presented by **G. Isaacman-VanWertz**
7. American Geophysical Union Fall Meeting 2015. “Understanding the lifecycle of organic carbon through multiple generations of aging.” Presented by **G. Isaacman-VanWertz**
6. American Association of Aerosol Research Annual Meeting 2015. “Understanding the role of aerosols in the lifecycle of organic carbon through multiple generations of aging.” Presented by G**. Isaacman-VanWertz**
5. American Chemical Society Fall Meeting 2015. “Comprehensive characterization of organic carbon through multiple generations of aging.” Presented by **G. Isaacman-VanWertz**
4. American Association of Aerosol Research Annual Meeting 2013. “Hourly measurements of highly oxygenated organic compounds in ambient aerosols.” Presented by **G. Isaacman-VanWertz**
3. American Geophysical Union Fall Meeting 2013. “Constraints on atmospheric oxidation pathways through biogenic oxygenated tracers.” Presented by **G. Isaacman-VanWertz**
2. Atmospheric Chemistry Colloquium for Emerging Senior Scientists XII 2013. “Hourly measurements of highly oxygenated organic compounds in ambient aerosols: Isoprene oxidation pathways.” Presented by **G. Isaacman-VanWertz**
1. American Geophysical Union Fall Meeting 2012. “Effects of molecular structure on the heterogeneous OH oxidation of motor oil particles.” Presented by **G. Isaacman-VanWertz**

Conference Poster

56. American Geophysical Union Annual Fall Meeting 2024. “Examining Sources of Uncertainty in Biogenic Emission Models Through Comparison to Long-Term Observations of Concentrations.” Presented by **N. Panji***
55. American Geophysical Union Annual Fall Meeting 2024. “Sesquiterpenes and their ozone reactions: highly diverse but very uncertain.” Presented by **G. Isaacman-VanWertz***
54. American Geophysical Union Annual Fall Meeting 2024. “AutoTERN: Fully Automated Chromatography Peak-Fitting software for the Atmospheric Community.” Presented by B. Lerner
53. American Geophysical Union Annual Fall Meeting 2024. “A Compact GC-PTR-TOF for Monitoring Volatile Organic Compounds.” Presented by M. Claflin
52. American Geophysical Union Annual Fall Meeting 2024. “Downstream impacts of deposition short-circuit production of late-generation gases and particles.” Presented by **G. Isaacman-VanWertz***
51. American Geophysical Union Annual Fall Meeting 2024. “Observing Precipitation Removal Timescales for Aerosols in Semi-Urban and Remote Areas.” Presented by **C. Stamatis***
50. American Association of Aerosol Research Annual Meeting 2024. “Carbon and Oxygen Volatility Distributions of Biomass Burning Organic Aerosols Undergoing Oxidation and Dilution.” Presented by **P. Kumar***
49. American Association of Aerosol Research Annual Meeting 2024. “Evaluation of U.S. Residential Wood Burning Emission Estimates and Air Quality Modeling during the 2015 WINTER Campaign.” Presented by B. Murphy
48. American Association of Aerosol Research Annual Meeting 2024. “Antibiotic Resistance Genes in Air Near Swine and Dairy Farms.” Presented by D. Kormos
47. The International Congress on Combustion By-Products and Their Health Effects 2024. “Comprehensive Accounting for Reactive Organic Carbon Emissions from Residential Wood Combustion Processes.” Presented by B. Murphy

46. American Geophysical Union Fall Meeting 2023. “Contrasts in Observed Versus Modeled BVOCs in a Southeastern US Forest.” Presented by **N. Panji***

45. American Association of Aerosol Research Annual Meeting 2023. “New Insights Into the Composition of Organics in the Atmosphere Enabled by Advanced Processing Techniques for Existing Chromatographic Datasets.” Presented by **S. Kim***

44. American Association of Aerosol Research Annual Meeting 2023. “Assessing the Effects of Wet Deposition: Observing Removal Timescales for Gases and Aerosols in Semi-Urban and Remote Areas.” Presented by **C. Stamatis***

43. Department of Energy Atmospheric System Research PI Meeting 2023. “Observational constraints on scavenging coefficients for wet deposition” at Department of Energy Atmospheric System Research Science Team Meeting, 2022. Presented by **C. Stamatis***

42. Department of Energy Atmospheric System Research PI Meeting 2022. “Chemical Signatures of Seasonally Unique Anthropogenic Influences on Organic Aerosol Composition in the Central Amazon.” Presented by E. Barnes

41. Department of Energy Atmospheric System Research PI Meeting 2022. “Estimated Timescales for Wet Deposition of Aerosol-Forming Gases as a Function of Henry’s Law Constants.” Presented by **G. Isaacman-VanWertz***

40. American Association of Aerosol Research Annual Meeting 2022. “Effect of Precipitation on the Emissions of BVOCs and Their Potential Aerosol Formation.” Presented by **N. S. Panji***

39. American Association of Aerosol Research Annual Meeting 2022. “Measuring Wet Deposition of Semi-Volatile Organic Compounds in and near a Virginia Forest.” Presented by **R. Lenear***

38. American Association of Aerosol Research Annual Meeting 2022. “Reconciling Emissions Models with Observed Variability in BVOC Concentrations.” Presented by **D. McGlynn***

37. American Association of Aerosol Research Annual Meeting 2022. “New Insights into the Composition of Organics in the Atmosphere Enabled by Advanced Processing Techniques for Existing Chromatographic Datasets.” Presented by **S. Kim***

36. American Association of Aerosol Research Annual Meeting 2022. “Antibiotic Gene Resistance in Air Near Farms.” Presented by D. Kormos

35. American Association of Aerosol Research Annual Meeting 2022. “Effects of Wet Removal on Aerosol Mass and Chemical Composition.” Presented by **C. Stamatis***

34. American Geophysical Union Annual Fall Meeting 2020. “Impacts of molecular structure on atmospherically-important physicochemical parameters.” Presented by **G. Isaacman-VanWertz***

33. American Geophysical Union Annual Fall Meeting 2020. “Observing ozone effects on transpiration, carbon assimilation, and photosynthesis by perturbing stomatal diffusive resistance.” Presented by J. Bushey

32. American Geophysical Union Annual Fall Meeting 2020. “Chemical evolution of particle-phase dimethyl sulfide oxidation products.” Presented by M. Goss

31. American Geophysical Union Annual Fall Meeting 2020. “Characterization of organic aerosol by volatility and elemental ratios using a new moderate-cost detection method, and implications for sulfur distribution.” Presented by **P. Kumar***

30. American Geophysical Union Annual Fall Meeting 2020. “Novel Low-Cost Concentrating Inlet for Enhancing Instrument Sensitivity and Level of Detection for Reactive Organic Gases in Small Sample Flows.” Presented by **N. Panji***

29. American Geophysical Union Annual Fall Meeting 2020. “Observing canopy-scale relationships between ozone flux, conductance, photosynthesis (SIF), and leaf skin temperature.” Presented by L.E.R. Barry

28. American Geophysical Union Annual Fall Meeting 2020. “Composition, concentrations, and reactivity of sesquiterpenes in the southeastern US.” Presented by **G. Frazier***
27. American Geophysical Union Annual Fall Meeting 2020. “Comprehensive Detection of All Analytes in Large Chromatographic Atmospheric Dataset.” Presented by **S. Kim***
26. American Association of Aerosol Research Annual Meeting 2020. “Influence of Small-scale Agricultural Activity on Local Particle- and Gas-phase Organic Composition.” Presented by **G. Frazier***
25. American Association of Aerosol Research Annual Meeting 2020. “New Inlet for Increasing Concentrations of Reactive Organic Gases in SCCM-Level Sample Flows.” Presented by **N. Panji***
24. American Association of Aerosol Research Annual Meeting 2020. “Comprehensive Detection of All Analytes in Large Chromatographic Atmospheric Dataset.” Presented by **S. Kim***
23. American Association of Aerosol Research Annual Meeting 2020. “The Impact of Structure on the Estimation of Atmospherically Relevant Physicochemical Parameters.” Presented by **G. Isaacman-VanWertz**
22. American Association of Aerosol Research Annual Meeting 2020. “A New Moderate-cost Method for the Characterization of Organic Aerosol by Volatility and Elemental Ratios.” Presented by **P. Kumar***
21. American Association of Aerosol Research Annual Meeting 2020. “Particle- and Gas-phase Chamber Measurements of Dimethyl Sulfide Oxidation..” Presented by M. Goss
20. American Association of Aerosol Research Annual Meeting 2020. “Anthropogenic Influences on Amazonian Organic Aerosol: A Molecular-Level Analysis.” Presented by E. Barnes
19. American Association of Aerosol Research Annual Meeting 2019. “Comprehensive Detection of All Analytes in a Large Chromatographic Dataset of Complex Environmental Samples.” Presented by **S. Kim***
18. American Association of Aerosol Research Annual Meeting 2019. “Concentrations of Biogenic Volatile Organic Compound in an East Coast Forest, and Their Relative Importance for Ozone Chemical Loss.” Presented by **D. McGlynn***
17. American Association of Aerosol Research Annual Meeting 2019. “Biogenic Oxidation Products in a Mixed Forest: Their Concentrations, Reactivity, and Fates.” Presented by **G. Frazier***
16. Gordon Research Conference – Atmospheric Chemistry, 2019. “Laboratory Evaluation of Organic Aerosol Chemical Composition Measurements Obtained from Different Soft Chemical Ionization High-Resolution Mass Spectrometers.” Presented by J. Krechmer
15. American Geophysical Union Fall Meeting 2018. “Measuring the oxygen content of atmospherically relevant compounds using a novel, robust detection approach.” Presented by **G. Isaacman-VanWertz**
14. American Geophysical Union Fall Meeting 2018. “A new low-weight, portable device for distributed sampling of gas-phase organic compounds.” Presented by **D. McGlynn***
13. American Geophysical Union Fall Meeting 2018. “Isomers and their impacts on interpreting chemical ionization mass spectrometry data.” Presented by **G. Isaacman-VanWertz**
12. Alfred P Sloan Foundation Chemistry of the Indoor Environment Meeting 2018. “Isomers and their impacts on interpreting chemical ionization mass spectrometry data.” Presented by **G. Isaacman-VanWertz**
11. National Science Foundation/National Center for Atmospheric Research - Atmospheric Chemistry Workshop, 2018. “Carbon closure and chemical evolution of multi-generational atmospheric oxidation.” Presented by **G. Isaacman-VanWertz**
10. Gordon Research Conference – Atmospheric Chemistry 2017. “Carbon closure and chemical evolution of multi-generational atmospheric oxidation.” Presented by **G. Isaacman-VanWertz**

9. American Association of Aerosol Research Annual Meeting 2017. “In-Particle Chemistry and Gas-Particle Partitioning of Isoprene SOA Tracers.” Presented by A. Fankhauser

8. International Global Atmospheric Chemistry Science Conference 2014. “Partitioning and variability of biogenic oxidation products measured by SV-TAG in anthropogenically influenced forested regions.” Presented by **G. Isaacman-VanWertz**

7. American Geophysical Union Fall Meeting 2014. “Understanding factors affecting partitioning of oxygenated organics in natural and polluted environments using SV-TAG.” Presented by **G. Isaacman-VanWertz**

6. Gordon Research Conference – Atmospheric Chemistry 2013. “Hourly measurements of highly oxygenated organic compounds in ambient aerosols: Exploring isoprene oxidation pathways.” Presented by **G. Isaacman-VanWertz**

5. International Global Atmospheric Chemistry Science Conference 2012. “Effects of branching on the heterogeneous OH oxidation of motor oil particles: Impacts on ambient aerosol and reaction pathways.” Presented by **G. Isaacman-VanWertz**

4. American Geophysical Union Fall Meeting 2011. “Aerosol sources using in-situ GC×GC in Pasadena, CA during CalNex 2010.” Presented by **G. Isaacman-VanWertz**

3. US Environmental Protection Agency – Science To Achieve Results Fellows Conference 2011. “Quantitative speciation of aerosols through in-situ GC×GC sampling in urban California.” Presented by **G. Isaacman-VanWertz**

2. American Geophysical Union Fall Meeting 2010. “Quantitative speciation of aerosols through in-situ GC×GC over Pasadena, CA during the CalNex 2010 experiment.” Presented by **G. Isaacman-VanWertz**

1. American Association of Aerosol Research Annual Meeting 2010. “Understanding evolution of product composition and volatility distribution in longifolene ozonolysis through in-situ GC×GC analysis.” Presented by **G. Isaacman-VanWertz**

PROFESSIONAL MEMBERSHIPS

2024 – present Member, American Association for the Advancement of Science
2022 – present Member (M.ASCE), American Society of Civil Engineers
2010 – present American Association for Aerosol Research
2010 – present American Geophysical Union, *intermittent*