

Steven S. Brown | Curriculum Vitae

NOAA Chemical Sciences Laboratory (CSL)
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Education

Ph.D., University of Wisconsin, Madison, WI, 1996; Advisor: F. Fleming Crim
B.A., Dartmouth College, Hanover, NH, 1989; Summa Cum Laude, Phi Beta Kappa

Professional Experience

September 2019-present: Tropospheric Chemistry Program Lead, NOAA CSL
December 2022-present: Atmospheric Remote Sensing Program Lead, NOAA CSL
June 2014-present: Adjoint Professor of Chemistry, University of Colorado
October 2005-present: Federal Research Chemist, NOAA CSL
October 2000-September 2005: Research Scientist, NOAA Aeronomy Laboratory, and Cooperative Institute for Research in the Environmental Sciences, University of Colorado
October 1997-September 2000: National Research Council Senior Research Fellow with Dr. A. R. Ravishankara, NOAA Aeronomy Laboratory

Honors and Awards

NOAA Office of Oceanic and Atmospheric Research (OAR), Best Scientific Paper Award, 2025
Fellow of the American Association for Advancement of Science, 2023
Fellow of the American Geophysical Union, 2022
Colorado Governor's Award for High Impact Research, 2022
Boulder County Healthy Community Award, 2022
NOAA Bronze Medal Award (Highest level granted by the Undersecretary for Oceans and Atmospheres), 2020, 2018
NOAA Office of Oceanic and Atmospheric Research (OAR), Best Scientific Paper Award, 2017
Harold I. Schiff Lecture, York University, Toronto, Ontario, 2015
Colorado Governor's Award for High Impact Research, 2014
McElvain Lecture, University of Wisconsin, 2013
CIRES Outstanding Performance Award, University of Colorado, 2003
Presidential Early Career Award for Scientists and Engineers, White House Office of Science and Technology Policy, 2002
National Research Council Post-Doctoral Fellowship, 1997-2000
Proctor & Gamble Fellowship, University of Wisconsin, 1994 – 1995
National Science Foundation Predoctoral Fellowship, 1991-1994
University of Wisconsin University Fellowship, 1990-1991
Samuel M. McElvain Fellowship, University of Wisconsin, 1990
Elden Bennett Hartshorn Medal & AIC Award, Dartmouth College, 1989

Professional Affiliations

American Geophysical Union (AGU)
European Geophysical Union (EGU)
American Chemical Society (ACS)
American Association for the Advancement of Science (AAAS)
American Meteorological Society (AMS)

Field Study Principal Investigator or Lead Scientist

Coordinating Lead Scientist, Airborne and Remote Sensing Methane and Air Pollutant Surveys (AiRMAPS), NOAA Twin Otter and P-3, Various Locations, 2024-2026

Co-Principal Investigator (with Caroline Womack), Utah Summer Ozone Study, CSL Mobile Laboratory & Twin Otter Aircraft, Utah, 2024

Co-Principal Investigator (with Sunil Baidar), Airborne Methane Mass Balance Experiment in Colorado, Twin Otter Aircraft, Colorado, 2024

Coordinating Lead Scientist, Atmospheric Emissions and Reactivity Observed from Megacities to Marine Areas (AEROMMA, NASA DC-8) and Coastal Urban Plume Dynamics Study (CUPiDS, NOAA Twin Otter), 2023

Lead Scientist (with Alan Brewer), California Fire Dynamics Experiment (CalFiDE), Twin Otter aircraft deployment in California, 2022.

Co-Principal Investigator (with Carsten Warneke, Brian McDonald and Jessica Gilman), Southwest Urban NO_x and VOC Experiment (SUNVEx), Las Vegas, NV and Los Angeles, CA, June – September 2021

Lead Scientist, NOAA Twin Otter Aircraft Deployment, NOAA-NASA FIREX-AQ, Boise, Idaho, July – September 2019

Lead Scientist, Utah Winter Fine Particulate Study (UWFPS), NOAA Twin Otter aircraft study in Salt Lake City, Utah, January-February 2017

Co-Principal Investigator (with Joel Thornton, University of Washington), Wintertime Investigation of Emissions, Transport and Reactivity (WINTER), NSF C-130 Aircraft, Langley, Virginia, February – March 2015

Lead Scientist, NOAA Boulder Atmospheric Observatory Measurements from a Tall Tower during the Front Range Air Pollution and Photochemistry Experiment (FRAPPE) / Deriving Information on Surface Conditions from Column and Vertically Resolved Observations Relevant to Air Quality (DISCOVER-AQ), Weld County CO, July – August 2014

Lead Scientist (with Tao Wang, Hong Kong Polytechnic University), Nighttime Chemistry at a High-Altitude Site in China, Tai Mo Shan Observatory, Hong Kong China, Mountaintop measurements, November – December 2013

Lead Scientist, Nitrogen Oxides, Aerosols and Halogens on a Tall Tower (NACHTT), field campaign, Weld County CO, February – March 2011

Lead Scientist, Activation of Continental Chloride by Reactive Oxides of Nitrogen in Midwinter (ACCRONIM), Boulder, CO, February 2009

Field Study Participation

COVID Air Quality Study (COVID-AQS), Boulder CO, Ground Site, April – August 2020

Fire Influence on Regional to Global Environments and Air Quality (FIREX-AQ), Boise ID and Western U.S., NASA DC-8 Aircraft and NOAA Twin Otter Aircraft, July – September 2019

Validation of SAGE III / ISS Nighttime Measurements of NO₃ and NO₂, Table Mountain CA, Ground based and remote sensing measurements, October 2019 - October 2021

NO₃-Isoprene Campaign, SAPHIR Environmental Simulation Chamber, Julich, Germany, July – August 2018

Fires, Asian and Stratospheric Transport – Las Vegas Ozone Study (FAST-LVOS), Las Vegas NV, NOAA mobile laboratory, May – June 2017

Study of Indoor Air Chemistry, Oakland CA, Ground based / indoor measurements, January 2017

FIREX FireLab, Missoula MT, Measurements at the Fire Sciences Laboratory, October – November, 2016

Pilot Study on Winter Air Quality, Salt Lake City UT, Ground based measurements, December 2015 - February 2016

Megacity Air Pollution Study, Seoul South Korea, Measurements from the Seoul Tower, May – June 2015

Shale Oil and Natural Gas Nexus (SONGNex), Broomfield CO and Oil and Gas Producing Regions across the Western U.S., NOAA P-3 Aircraft, March – April 2015

Campaigns of Air Pollution Research in Megacity Beijing and North China Plain (CARE-Beijing NCP), Ground based measurements, Wangdu China, July – September 2014

Utah Winter Ozone Studies (UBWOS), Uintah Basin UT, Ground based and NOAA mobile laboratory, January – February 2012, 2013, 2014 (3 separate deployments / years)

Studying the Interactions Between Natural and Anthropogenic Emissions and the Nexus of Climate Change and Air Quality (Southeast Nexus, SENEX), NOAA P-3 Aircraft and Ground based measurements, Smyrna TN and Centreville AL, July – August 2013

Summer Ozone Near Natural gas Emissions (SONNE), Ground based measurements, Weld County CO, July – August 2012

The Fourth Fire Lab at Missoula Experiment (FLAME-IV), Measurements at the Fire Sciences Laboratory, October 2012

Rocky Mountain Biogenic Aerosol STudy (BEACHON-RoMBAS), Manitou Springs CO, Ground based measurements, July – August 2011

Research at the Nexus of Air Quality and Climate Change, California Nexus (CalNex), NOAA-P3 aircraft, Pasadena CA ground site, Research Vessel Atlantis, May – July 2010

International Chemistry Experiment in the Arctic Lower Troposphere (ICEALOT), North Atlantic Ocean, measurements on Research Vessel Knorr, March – April 2008

NO₃ Intercomparison Experiment, SAPHIR Environmental Simulation Chamber, Julich, Germany, July 2007

Texas Air Quality Study – Gulf of Mexico Atmospheric Composition and Climate Study (TexAQS / GoMACCS), Houston TX and Gulf of Mexico, NOAA P-3 aircraft and NOAA Research Vessel Ronald H. Brown, August – October 2006

New England Air Quality Study – Intercontinental Transport and Chemical Transformation (NEAQS-ITCT), Portsmouth NH and Gulf of Maine, NOAA P-3 aircraft and NOAA Research Vessel Ronald H. Brown, June – August 2004

New England Air Quality Study, Northeast U.S. and Gulf of Maine, NOAA Research Vessel Ronald H. Brown, July – August 2002.

Conference Organization

Co-Chair, Telluride Workshop on New Directions in Gas Phase Atmospheric Chemistry, July 2024, Telluride CO

Organizer, Session on “Regional Air Quality”, 26th Conference on Atmospheric Chemistry at the American Meteorological Society meeting, Baltimore, MD January 2024

Organizer, Session on Urban Atmospheric Chemistry, American Chemical Society Meeting, San Francisco, CA, August 2023

Organizing Committee, Workshop on a Pilot Design for Air Quality in Africa, Kigali, Rwanda, January 2023

Organizer, Session on “Regional Air Quality”, 25th Conference on Atmospheric Chemistry at the American Meteorological Society meeting, Denver, CO, January 2023

Organizer, Session on “Regional Air Quality”, 24th Conference on Atmospheric Chemistry at the American Meteorological Society meeting, Houston, TX, January 2022

Organizer, Session on “Air Quality and Climate Impacts of Biomass Burning”, 23rd Conference on Atmospheric Chemistry at the American Meteorological Society meeting, Virtual Meeting, January 2021

Organizer, Session on “Air quality during the COVID-19 pandemic,” American Geophysical Union (AGU) Meeting, Virtual Meeting, December 2020

Organizer, Session on “Regional Air Quality”, 22nd Conference on Atmospheric Chemistry at the American Meteorological Society meeting, New Orleans, LA, January 2020

Chair and Organizer (with Gannet Hallar, University of Utah and Chris Cappa, University of California, Davis), Workshop on Air Quality Research in the Western United States, NSF and NOAA supported workshop to organize field work to address wintertime air quality, Salt Lake City, UT, September 2019

Chair (with Randall Goldsmith, University of Wisconsin and Gerard Wysocki, Princeton University), 13th International Symposium on Cavity Enhanced Spectroscopy, Madison, WI, June 2019

Organizer, Session on “Air Quality in Urban Airsheds during Winter,” American Geophysical Union (AGU) Meeting, New Orleans, LA, December 2017

Chair (with Professor Sally Ng, Georgia Tech), Special Symposium on the Effect of NO_x and SO₂ on BVOC Oxidation and Organic Aerosol Formation, American Association for Aerosol Research Annual Conference, Portland, OR October 2016

Chair (with Professor Frank Keutsch, Harvard University), Symposium on Spectroscopy in Atmospheric Chemistry, International Symposium on Molecular Spectroscopy, Champaign-Urbana, IL, June 2016

Chair (with Dr. Rebecca Washenfelder, NOAA), 11th International Symposium on Cavity Enhanced Spectroscopy, Boulder, CO, June 2015

Chair (with Professor Sally Ng, Georgia Tech), IGAC Workshop on Nitrate Radicals and Biogenic Hydrocarbons, Atlanta, GA, June 2015

Organizing Committee, Conference on Light Energy and the Environment, Sponsored by the Optical Society of America, Canberra, Australia, December 2014

Chair (with Professor Yinon Rudich, Weizmann Institute of Science, Israel), Gordon Research Conference on Atmospheric Chemistry, Mt. Snow, VT, July 2013

Organized sessions at American Geophysical Union (AGU) Meetings, including “Wintertime Atmospheric Chemistry,” December 2015; “Air Quality in Asia,” December 2014; “Tropospheric Halogens: Sources, Multiphase Chemistry and Impacts, December 2011; “Day and Night Chemical Processing in Polluted Atmospheres,” December 2007.

Organized symposia at American Chemical Society (ACS) Meetings, including “Chemistry of Atmospheric Nitrogen Containing Compounds,” ACS National Meeting, San Francisco, CA, August 2014; “Atmospheric Chemistry and Climate,” ACS National Meeting, Boston, MA, August 2010.

Committee and Editorial Service

Editorial Board Member, Nature Partner Journals (NPJ) Clean Air, 2024 - present

Editorial Board Member, Environmental Science and Technology–Air, 2023 - present

U.S. Greenhouse Gas Center, Focus Area 3, 2023 – present

Colorado Regional Air Quality Council, Modeling and Analysis Technical Advisory Group, 2023 - present

American Geophysical Union, Atmospheric Sciences Fellows Committee, 2022 - present

American Meteorological Society, Atmospheric Chemistry Committee, 2021 – present; Atmospheric Chemistry Program Chair, 2023 – present.

Editor, Atmospheric Chemistry and Physics, 2013 – present

Journal reviewer for Atmospheric Chemistry and Physics, Atmospheric Environment, Atmospheric Measurement Techniques, Analytical Chemistry, Elementa, Environmental Chemistry, Environmental Science & Technology, International Journal of Chemical Kinetics, Journal of Geophysical Research, Geophysical Research Letters, Journal of Physical Chemistry, Physical Chemistry Chemical Physics, Nature, Proceedings of the National Academy of Sciences, Reviews of Scientific Instruments, Science, Science of the Total Environment

Proposal Reviewer for the Department of Energy (DOE), National Aeronautics and Space Administration (NASA), National Science Foundation (NSF), National Oceanic and Atmospheric Administration (NOAA), Research Corporation, University of California, Berkeley, Deutsche Forschungsgemeinschaft (DFG – German Research Foundation), EUOROCHAMP, Natural Environment Research Council (NERC, Great Britain)

Service on NSF & NASA review panels 2020, 2013, 2010, 2008

Community Service & Outreach Activities

University of Colorado “Wizards” Public Lecture for Elementary Age Children, “There’s Something in the Air!” December 2014, 2016, 2018, 2021, 2023

Colorado Regional Science Fair Judge, 2019
Science Fair Judge, Peak to Peak High School, 2008, 2009, 2010

Mentorship of Post-Doctoral Fellows, Students and Hosting of Sabbatical Visitors

Current post-doctoral fellows and graduate students

Chris Jernigan, post-doc, CIRES, University of Colorado
Wyndom Chace, graduate student, University of Colorado, Department of Chemistry
Nell Schafer, graduate student, University of Colorado, Department of Chemistry

Previous Students and Post-Doctoral Fellows & Current Positions

Mattias Aldener (Scientist, FOI, Stockholm, Sweden)
Hans D. Osthoff (Professor, University of Calgary, Calgary, Canada)
Jonathan E. Flad (Professor, Ohio State University ATI, Wooster, Ohio, USA)
Hendrik Fuchs (Research Scientist, Forschungszentrum Jülich, Germany)
Roberto Sommariva (University of Leeds, UK)
Nicholas L. Wagner (Research Scientist, CIRES & NOAA CSL, now at Ball Aerospace)
Cora J. Young (Associate Professor, York University, Toronto, Ontario, Canada)
Tara F. Kahan, jointly with Veronica Vaida (Associate Professor, University of Saskatchewan, Canada)
Peter M. Edwards (Research Scientist, University of York, UK)
Alexis R. Atwood (Droplet Measurement Technologies, Boulder, CO)
Kyung-Eun Min (Professor, Gwangju Institute of Technology, Korea)
Robert J. Wild (University of Innsbruck, Austria)
Dorothy Fibiger (California Air Resources Board, Sacramento, CA)
Kyle Zarzana (Research Scientist, National Center for Atmospheric Research, Boulder, CO)
Caroline C. Womack (Federal Research Scientist, NOAA CSL)
Erin McDuffie (United States Environmental Protection Agency)
William P. Dubé (Engineer, Currently in Auckland, NZ)
Rebecca Washenfelter (Federal Research Scientist, NOAA CSL, now retired)
Jaime Green (Graduate Student, NCA&T, currently at University of North Carolina)
Zach Decker (Graduate student, currently post-doctoral fellow at Paul Scherer Institute)
Michael Robinson (Graduate student, currently research scientist at NOAA CSL)

Graduate Students Hosted & CU Thesis Advisors

Karl J. Feierabend (Veronica Vaida)
Daniel K. Havey (Veronica Vaida)
Ryan Thalman (Rainer Volkamer)
Kyle Zarzana (Maggie Tolbert)
Jessica Axson (Veronica Vaida)

Undergraduate Students Fellows and Home Institution

Maya R. Nunley, NOAA EPP Fellow from Clark Atlanta University, 2005
Thomal Langel, NOAA Hollings Fellow from the University of Wisconsin, 2010
Taylor Brownlee, NOAA Hollings Fellow from the University of Arizona, 2011
Reed Wommack, NOAA Hollings Fellow from Dartmouth College, 2013
Brigitte Rooney, NOAA Hollings Fellow from the University of Colorado, 2014
Maurice Roots, NOAA Hollings Fellow from Hampton University, 2018
Wyndom Chace, NOAA Hollings Fellow from Williams College, 2020
Nabiha Hassan, NOAA Hollings Fellow from UC Berkeley, 2022

Sabbatical Visitors

Professor Juliane L. Fry, Reed College, Portland Oregon, 2011-2012

Professor Robert McLaren, York University, Toronto, Ontario, 2011-2012

Academic Courses

University of Colorado, Chemistry 4511, Physical Chemistry I

Spring 2016, Spring 2018, Spring 2022

University of Colorado, Chemistry 5161, Graduate Analytical Spectroscopy

Spring 2020, Fall 2020, Fall 2022, Spring 2024

University of Colorado, Chemistry 5152, Advanced Atmospheric Chemistry

Spring 2025

Analytical Instrument Development

Cavity Ring Down Spectroscopy for NO_3 and N_2O_5

S. S. Brown *et al.*, Faraday Disc., **200**, 529 (2017)

N. L. Wagner *et al.*, Atmos. Meas. Tech. **4**, 1227 (2011)

W. P. Dubé *et al.*, Rev. Sci. Instr. **77**, 034101 (2006)

S. S. Brown, *et al.* Rev. Sci. Instr. **73**, 3291 (2002)

Cavity Ring Down Spectroscopy for NO_2 , NO , O_3 and NO_y

R. J. Wild *et al.*, Environ. Sci. Technol. **48**, 9609 (2014).

R. A. Washenfelder *et al.*, Environ. Sci. Technol. **45**, 2938 (2011).

H. Fuchs *et al.*, Environ. Sci. Technol. **43**, 7831 (2009).

Broadband Cavity Enhanced Spectroscopy for UV-VIS absorbing gases

K. E. Min *et al.*, Atmos. Meas. Tech. **9**, 423 (2016).

R. A. Washenfelder, *et al.*, Atmos. Chem. Phys. **8**, 7779 (2008).

Aerosol Optical Properties

A. R. Attwood *et al.*, Geophysical Research Letters **41**, 7701 (2014).

R. A. Washenfelder, *et al.* Atmos. Meas. Tech. **6**, 861 (2013).

T. Baynard *et al.*, Aerosol Science and Technology **41**, 447 (Apr, 2007).

Miniaturized instruments for UAS applications

C. C. Womack *et al.* Atmos. Meas. Tech., 15, 6643 (2022)

Patents

U.S. Patent Number 9804138, Measurement of Total Reactive Nitrogen NO_y , Together with NO_2 , NO , and O_3 , via Cavity Ring-Down Spectroscopy

External Collaborators and Research Projects

Yinon Rudich, Weizmann Institute, Israel

U.S. Israel Binational Science Foundation Grants to investigate sources of brown carbon aerosol, new instrumentation for aerosol optical properties, new instrumentation for UAS

Keding Lu, Peking University, China

Nighttime chemistry in the context of major field campaigns in China

Tao Wang, Hong Kong Polytechnic University, China

Field studies of nighttime chemical processes in Hong Kong, China

Wahid Mellouki, CNRS, Orleans, France

Laboratory and field studies of nitrate radicals

Andy Ruth, University College Cork, Ireland & Andreas Zahn, Karlsruhe Institute of Technology, Germany

Development of new instrument for measurement of N_2O_5 in the upper troposphere from CARIBIC

Solomon Bililign, North Carolina A&T, Greensboro, NC
Analysis of field campaign data and co-advising of Ph.D. Students
S. Brown appointed as Adjunct professor in Department of Energy and Environmental Systems to advise Ph.D. students at NC A&T

Recent and Forthcoming Presentations

- “The Airborne and Remote Sensing Multi Air Pollutant Surveys – Summary of the 2024 and 2025 campaigns”, TEMPO Science Team Meeting, Cambridge, MA, August 2025
- “Gas Analyzers – SO₂, O₃ and VOCs,” Air Quality Training Program at the Ethiopian Meteorological Institute, Addis Ababa, Ethiopia, May 2025
- “Urban Air Quality and Greenhouse Gases from Recent Airborne Field Campaigns in the United States,” European Geophysical Union Meeting, Vienna, Austria, April 2025.
- “Biomass burning influence on tropospheric ozone from recent field studies,” American Meteorological Society Meeting, New Orleans, LA, January 2025.
- “The 2024 Airborne and Remote Sensing Methane and Air Pollutant Surveys (AiRMAPS) Campaign in Colorado and Utah”, American Geophysical Union Meeting, Washington, D.C., December 2024
- “The Airborne and Remote Sensing Methane and Air Pollution Surveys: Initial Results from Colorado and Utah”, University of Colorado, Analytical Chemistry Seminar, October 2024
- “Airborne Ozone Profiles under TEMPO during the 2023 AEROMMA and CUPiDS Campaigns”, TEMPO Science Team Meeting, Kona, HI, August 2024
- “Anything New Under the Sun ? Thoughts on Ozone Photochemistry”, Workshop on New Directions in Gas Phase Atmospheric Chemistry, Telluride, CO, July 2024
- “Airborne and Remote Sensing Methane and Air Pollutant Surveys”, NOAA GeoXO Meeting, College Park, MD, May 2024
- “Ozone in Biomass Burning Plumes Aloft during AEROMMA, STAQS and CUPiDS”, AGES+ Science Team Meeting, Boulder, CO, May 2024
- “Biomass Burning Influence on Tropospheric Ozone from Recent Airborne and Ground Based Field Studies”, European Geophysical Union Meeting, Vienna, Austria, April 2024
- “Ozone in Wildfire Smoke: Impact on Atmospheric Composition at Local, Regional and Global Scale”, Program in Atmospheres, Oceans & Climate Colloquium, Massachusetts Institute of Technology, March 2023.
- “Ozone Production in Wildfire Smoke Plumes and its Influence on Urban Ozone”, American Geophysical Union Fall Meeting, San Francisco, CA, December 2023.
- “Ozone in Wildfire Smoke and its Influence at Regional and Global Scale”, University of Colorado Analytical Chemistry Seminar, Boulder, CO, December 2023
- “Air Quality Research in North America and NOAA’s Interest in Air Quality Research in Africa”, Together for Clean Air in Ethiopia Workshop, Addis Ababa, Ethiopia, December 2023.
- “U.S. Air Quality Research”, Workshop on Photochemical Air Pollution in Highly Urbanized Subtropical Regions, Hong Kong, China, November 2023
- “The NOAA Chemical Sciences Laboratory Airborne Research Program”, Facilities for Atmospheric Research and Education (FARE) workshop, NCAR Earth Observing Laboratory, Boulder, CO, September 2023
- “The Southwest Urban NO_x and VOC Experiment”, Symposium on Urban Atmospheric Chemistry, American Chemical Society National Meeting, San Francisco, CA, August 2023
- “Atmospheric Composition Research in the NOAA Chemical Sciences Laboratory”, NASA Student Airborne Research Program, Palmdale, CA, June 2023
- “NOAA CSL in situ measurements, mobile measurements, aircraft campaigns”, NOAA GHG monitoring workshop, Silver Spring, MD, June 2023
- “Large Scale Multi-Agency / Platform Sub-Orbital Activities”, TEMPO Science Team Meeting, Huntsville, AL, May 2023

- “Air quality measurement programs and strategies in the U.S. and how they might inform observations and modeling in an African megacity,” Workshop on a Pilot Design for Air Quality in Africa, Kigali, Rwanda, January 2023
- “Wildfire Influence on Urban Ozone: An Observationally Constrained Box Model Study at a Site in the Colorado Front Range,” American Meteorological Society Meeting, Denver, CO, January 2023
- “AGU Fellows Talk” American Geophysical Union Meeting, December 2022, Chicago, IL
- “Pollutant Emissions and Distributions in the U.S. Urban Southwest: Mobile Measurements of Nitrogen Oxides, Greenhouse Gases and VOCs,” American Geophysical Union Meeting, December 2022, Chicago, IL
- “Wildfires and Ozone: Emissions, Chemistry and New Challenges to Air Quality”, Department of Chemistry Seminar, Northern Kentucky University, October, 2022.
- “Heterogeneous Chemistry on Biomass Burning Aerosol: Aircraft Measurements of N_2O_5 and ClNO_2 during FIREX-AQ”, American Association for Aerosol Research (AAAR) Annual Meeting, Raleigh, North Carolina, October 2022

Publications

Research ID: <https://publons.com/researcher/I-1762-2013/>

Google Scholar: <https://scholar.google.com/citations?user=A79-IVsAAAAJ&hl=en>

Submitted, Discussion or In Press

290. Yang, L.H., Jacob, D. J., Bates, K. H., H. Lin, Allen, H. M., Müller, J.-F., Brown, S. S., R. Dang, Colombi, N. K., S. Zhai, R.M. Yantosca, J.F. Brewer, N.L. Ng, J.D. Crounse, P.O. Wennberg, K. Li, and H. Liao, *Modeling of methyl hydroperoxide observations in urban and remote air over South Korea: methylperoxy radical chemistry and inference of atmospheric methanediol*. Geophys. Res. Lett., 2025. **submitted**.
289. Schafer, N., J. Peischl, E. Apel, B. Barletta, D. Blake, P. Dass, J. DiGangi, G. Diskin, C. Francoeur, A. Fried, J. Gilman, K. Gurney, C. Harkins, R.S. Hornbrook, X. Lan, A. Lamplugh, M. Li, S. Meinardi, J. Nowak, G. Petron, D. Richter, M. Selby, V. Selimovic, V. Treadaway, J. Walega, P. Weibring, C. Womack, and S. Brown, *Trends in CH₄ Emission Sources in the Los Angeles Basin from 2010–2023 using Airborne Measurements*. Environ. Sci. Technol., 2025. **submitted**.
288. Warneke, C., A. Rollins, P.R. Veres, S. Baidar, W.A. Brewer, Brown, S. S., L. Judd, J.E. Mak, X. Ren, R. Dickerson, M. Witte, J. Zhang, D.R. Gentner, A.T. Lambe, D.B. Millet, D.K. Farmer, A.F. Dickens, M. Newchurch, R.B. Pierce, C.J. Young, T. VandenBoer, L.M. Russell, P. Muradyan, J. O'Brien, S. Collis, R. Volkamer, K. Okorn, N.L. Ng, J. Kaiser, G.M. Wolfe, J. Sullivan, X. Liu, R.M. Suleiman, L. Valin, C.E. Stockwell, M.M. Coggon, G. Gkatzelis, M.A. Robinson, C. Jernigan, S. Wang, I. Pollack, K. Zuraski, A.M. Middlebrook, J.B. Gilman, B. A., A. Ahern, C. Womack, J. Miller, J.P. Schwarz, A. Sullivan, J. Peischl, B. Carroll, B. McCarty, E. Strobach, B. Weinzierl, R. Barton-Grimley, A. Nehrir, J.K. Taylor, C.K. Gatebe, H. Fuchs, B. Bohn, A. Novelli, P. Wennberg, J.D. Crounse, D.J. Cziczo, H. Gamarro, J. Kazil, B. Lefer, S. Kondragunta, G. Frost, B.C. McDonald, and R. Schwantes, *Overview of the 2023 AEROMMA, CUPiDS, and AGES+ Atmospheric Composition Field Experiments*. J. Geophys. Res., 2025. **Submitted**.
287. Robinson, M.A., M.M. Coggon, K.H. Batesa, J. Peischl, Jernigana, Christopher M., G. Novak, S. Thakali, J.M. Roberts, J.A. Neumana, P.R. Veresb, K. Zuraskia, E.M. Waxmana, W.S. Chacea, A.W. Rollins, V. Treadaway, A. Lamplugh, M. Selby, C. Francoeur, J.B. Gilman, S. Liu, E.R. Delaria, A. Sebol, N.S. Desaij, J. Kaiser, K.E. Kautzman, J.M. St. Clairg, G.M. Wolfe, L. Xu, C.E. Stockwell, C. Warneke, H.N. Huyn, M. Lyu, A. Ahern, C. Brock, A. Piasecki, S. Albertin, A. Middlebrook, A. Sullivan, M.K. Mohanj, R. Weber, E. Lill, I. Pollack, K. Ball, J.D. Crounse, P.O. Wennberg, A. Novelli, A. Stainsby, H. Fuchs, B. Bohn, G. Gkatzelis, J.P. DiGangi, G.S. Diskin, J.J.M. Acdan, R.B. Pierce, C.-H. Hsu, S. Wang, R. Schwantes, G.G. Abad, C.R. Nowlan, X. Liu, N. Howard, and S.S. Brown, *Fate of isoprene peroxy radicals constrains the urban photochemical regime*. PNAS, 2025. **submitted**.
286. Saiz-Lopez, A., A.S. Mahajan, J. Abbatt, N. Bobrowski, S.S. Brown, J.P. Burrows, L.J. Carpenter, M.P. Chipperfield, C.A. Cuevas, R.P. Fernandez, R. Hossaini, D.E. Kinnison, J.-F. Lamarque, B.J. Finlayson-Pitts, J.M.C. Plane, U. Platt, K.A. Pratt, A.R. Ravishankara, R. Salawitch, E. Saltzman, W.R. Simpson, S. Solomon, J.A. Thornton, and T. Wang, *Short-Lived Halogens: A Key Component of Atmospheric Chemistry and Climate*. Nature, 2024. **submitted**.

Published

285. Lyu, C., C. Harkins, M. Li, K. Mueller, J. Prothero, B. Verreyken, J.B. Miller, S.J. Lehman, J. Peischl, J.B. Gilman, C. Warneke, M.M. Coggon, C.E. Stockwell, S.S. Brown, K. Zuraski, A. Lamplugh, K.R. Gurney, L. Gawuc, P. Dass, R.M. Hoesly, S.J. Smith, T. Oda, L.R. Hutya, C.K. Gatelly, C. Granier, J.R. Whetstone, and B.C. McDonald, *Development of the United States GGreenhouse Gas and Air Pollutants Emissions System (GRA2PES)*. Journal of Geophysical Research: Atmospheres, 2025. **130(20): p. e2025JD043597.**

284. Warneke, C., C.E. Stockwell, J. Peischl, J.B. Gilman, A. Lamplugh, L. Xu, K. Zuraski, S.S. Brown, S. Baidar, R. Marchbanks, W.A. Brewer, M. Li, B. McDonald, and M.M. Coggon, *Air Quality Field Measurements in Las Vegas: Ozone Formation and Its Sensitivity to NO_x and VOCs*. Journal of Geophysical Research: Atmospheres, 2025. **130**(19): p. e2025JD043787.
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