HANNAH S. KENAGY

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EDUCATION

University of California at Berkeley, Berkeley, CA 2021
PhD in Chemistry, Advisor: Ronald C. Cohen
Dissertation: Condensed phase and dark reactions of atmospheric nitrogen oxides

University of Chicago, Chicago, IL 2016
BS with Honors in Chemistry
Thesis: Estimating the stratospheric hydrogen isotope budget using satellite remote sensing data

AWARDS AND FELLOWSHIPS

NSF Atmospheric and Geospace Sciences Postdoctoral Research Fellow 2022-2024

MIT Civil and Environmental Engineering Rising Stars 2021 2021

Alternate, NOAA Climate & Global Change Postdoctoral Fellowship 2021

NSF Graduate Research Fellow 2016-2021

American Geophysical Union Outstanding Student Presentation Award 2018

Graduate Division Conference Travel Grant (UC Berkeley) 2017

Dean's List, Univ. of Chicago 2012-2016

Stamps Scholar at the Univ. of Chicago 2012-2016

Dean's Fund for Student Life Grant (Univ. of Chicago) 2016

F. Champion Ward Third Year International Travel Grant (Univ. of Chicago) 2014

Semi-finalist in Intel Science Talent Search 2012

Fourth place in biochemistry at Intel International Science & Engineering Fair 2012

Semi-finalist in 2012 US Presidential Scholars Program 2012

RESEARCH EXPERIENCE

NSF Postdoctoral Research Fellow (Advisors: Jesse Kroll & Colette Heald), MIT 2022-present

NSF Graduate Research Fellow (Advisor: Ronald Cohen), UC Berkeley 2016-2021

Undergraduate Researcher (Advisor: Elisabeth Moyer), Univ. of Chicago 2014-2016

Undergraduate Researcher (Advisor: Mathew Heal), Univ. of Edinburgh 2014

High School Researcher (Advisor: Carlos Simmerling), Stony Brook Univ. 2010-2011

PUBLICATIONS

Kulju, K.D., S.M. McNamara, Q. Chen, **H.S. Kenagy**, J. Edebeli, J.D. Fuentes, S.B. Bertman, K.A. Pratt. "Urban inland wintertime N_2O_5 and $ClNO_2$ influenced by snow-covered ground, air turbulence, and precipitation," *Atmospheric Chemistry and Physics*, 2022. https://doi.org/10.5194/acp-22-2553-2022

Kenagy, H.S., P.S. Romer Present, P.J. Wooldridge, B.A. Nault, P. Campuzano-Jost, D.A. Day, J.L. Jimenez, and R.C. Cohen. "Contribution of organic nitrates to organic aerosol over South Korea during KORUS-AQ," *Environmental Science & Technology*, 2021. https://doi.org/10.1021/acs.est.1c05521

Kenagy, H.S., T.L. Sparks, P.J. Wooldridge, A.J. Weinheimer, T.B. Ryerson, D.R. Blake, R.S. Hornbrook, E.C. Apel, and R.C. Cohen. "Evidence of nighttime production of organic nitrates during SEAC^{4}RS, FRAPPÉ, and KORUS-AQ," *Geophysical Research Letters*, 2020.
https://doi.org/10.1029/2020GL087860

Kenagy, H.S., T.L. Sparks, C.J. Ebben, P.J.Wooldridge, F.D. Lopez-Hilfiker, B.H. Lee, J.A. Thornton, E.E. McDuffie, D.L. Fibiger, S.S. Brown, D.D. Montzka, A.J. Weinheimer, J.C. Schroder, P. Campuzano-Jost, D.A. Day, J.L. Jimenez, J.E. Dibb, E.C. Apel, T. Campos, V. Shah, L. Jaeglé, and R.C. Cohen. "NO_x lifetime and NO_y partitioning during WINTER," *Journal of Geophysical Research – Atmospheres*, 2018. https://doi.org/10.1029/2018JD028736

Jaeglé, L., V. Shah, J.A. Thornton, F.D. Lopez-Hilfiker, B.H. Lee, E.E. McDuffie, D.L. Fibiger, S.S. Brown, P. Veres, T.L. Sparks, C.J. Ebben, P.J. Wooldridge, **H.S. Kenagy,** R.C. Cohen, A.J. Weinheimer, T. Campos, D.D. Montzka, J. DiGangi, G. Wolfe, T. Hanisco, J.C. Schroder, P. Campuzano-Jost, D.A. Day, J.L. Jimenez, A. Sullivan, H. Guo, and R. Weber. "Nitrogen oxides emissions, chemistry, deposition, and export over the Northeast United States during the WINTER aircraft campaign," *Journal of Geophysical Research - Atmospheres*, 2018. https://doi.org/10.1029/2018JD029133

Kenagy, H.S., C. Lin, H. Wu, and M.R. Heal. "Greater nitrogen dioxide concentrations at child versus adult breathing heights close to urban main road kerbside." *Air Quality, Atmosphere, and Health*, 9:589, 2016. https://doi.org/10.1007/s11869-015-0370-3

PRESENTATIONS

"Constraining RO_2 fate in environmental chambers: a systematic, model-informed approach for laboratory studies of VOC oxidation." American Chemical Society Spring 2023 Meeting, Indianapolis, IN, March 2023, *oral presentation.*

"Using models to inform atmospherically relevant laboratory measurements of aerosol formation reactions." Caltech Young Investigators Lecture Series, Pasadena, CA, March 2023, *invited seminar.*

"Integrated laboratory and model approach to understanding the multiphase product distribution of Cl-initiated VOC oxidation." American Geophysical Union Fall Meeting, Chicago, IL, December 2022, *poster.*

"SOA production from mixtures of Cl- and OH-initiated isoprene oxidation." American Association for Aerosol Research Annual Conference, Raleigh, NC, October 2022, *poster.*

"Using measurements and modeling to understand atmospheric oxidation pathways with implications for air quality and climate." MIT Civil and Environmental Engineering Rising Stars Workshop, Cambridge, MA, October 2021, *invited talk.*

"NO_xthing good happens after midnight: the importance of nighttime chemistry for urban NO_x loss." Berkeley Atmospheric Science Center seminar, virtual, April 2021, *invited seminar.*

"Toward accurate satellite-based inferences of emissions of NO_2 from fires: insights from FIREX-AQ." FIREX-AQ ER-2 Science Team Meeting, May 2020, *oral presentation.*

"Production and fate of alkyl nitrates during KORUS-AQ." American Geophysical Union Fall Meeting 2019, San Francisco, CA, December 2019, *invited talk.*

"Gas-particle partitioning of total alkyl nitrates during KORUS-AQ." Berkeley Atmospheric Science Center Symposium, Berkeley, CA, April 2019, *poster.*

"Gas-particle partitioning of total alkyl nitrates during KORUS-AQ." American Geophysical Union Fall Meeting 2018, Washington, D.C., December 2018, *oral presentation*. (Outstanding Student Presentation Award winner)

"NO_x lifetime and NO_y partitioning during WINTER." Berkeley Atmospheric Science Center Symposium, Berkeley, CA, February 2018, *poster*.

"NO_x lifetime during WINTER." American Geophysical Union Fall Meeting 2017, New Orleans, LA, December 2017, *poster*.

"Isotopic signatures in the stratospheric hydrogen isotope budget." ACE Satellite Science Team Meeting, Waterloo, ON, Canada, May 2016, *oral presentation*.

"Estimating the stratospheric hydrogen isotope budget using satellite remote sensing data." Midstates Undergraduate Research Symposium, Chicago, IL, November 2015, *poster*.

"Greater nitrogen dioxide concentrations at child versus adult breathing heights close to urban main road curbside." Univ. of Chicago Undergraduate Research Symposium, Chicago, IL, October 2015, *poster*.

TEACHING EXPERIENCE

MIT Traveling Research Environmental Experiences (TREX): Teaching Assistant, HI	2023
Intersections of data science and chemistry: Guest Lecturer, UC Berkeley, CA	2021
Analytical Chemistry: Graduate Student Instructor, UC Berkeley, CA	2018
General Chemistry: Graduate Student Instructor, UC Berkeley, CA	2016, 2017
Calculus: Undergraduate Teaching Assistant, Univ. of Chicago, IL	2013
English as a Second Language: Instructor, Tsinghua Univ., Beijing, China	2013

UNDERGRADUATE RESEARCH MENTORSHIP

Isabel Albores (2022, MIT Summer Research Program): *"Long term aging of methyl vinyl ketone"*

Evelyn Widmaier (2021-2022, Univ. of Michigan): *"Atmospheric ozone depletion events in the Alaskan Arctic"*

Lindsey Anderson (2018-2021, UC Berkeley): *"Ozone chemistry in Seoul during KORUS-AQ"*
Next position: PhD student and NSF Graduate Research Fellow at CU Boulder

Jennifer Grant (2020-2021, UC Berkeley): *"Using machine learning to improve computational efficiency of satellite NO_2 retrievals"*
Next position: Data Scientist at Rappi

TEACHING, MENTORING, AND INCLUSIVITY TRAINING

Graduate Student Inclusivity Training: Restorative Justice Center, UC Berkeley, CA	Spring 2021
Certificate in Teaching and Learning in Higher Education: UC Berkeley, CA	completed 2021
Effective Mentoring in Higher Education: UC Berkeley, CA	Spring 2021
Teaching and Learning in Higher Education: UC Berkeley, CA	Spring 2020

OUTREACH

POWER-Bay Area 2019-present
Co-founder, Coordinator & Workshop Leader *Berkeley, CA*

· Physical science Opportunities for Women in Education and Research - Bay Area

· Organize and lead mentoring program for Bay Area community college women in the physical sciences

Women+ Excelling More in Math, Engineering, and the Sciences 2021-2022
Activity Leader *Ann Arbor, MI*

· Program for 4^{th} - 6^{th} grade girls from low income families and/or from groups historically underrepresented in STEM
· Co-lead development of and organized volunteers for capstone activity

Bay Area Scientists in Schools (BASIS) 2017-2021
Volunteer & Team Coordinator *Berkeley, CA*

· Coordinate team of student and post-doc volunteers to bring science lessons to local elementary school classrooms
· Adapted lessons to virtual format for 2020-2021

Neighborhood Schools Program 2012-2013
Volunteer Science & Math Tutor *Chicago, IL*

· Tutored Kenwood Academy (Chicago Public Schools) high school students in science and math

SERVICE

Peer reviewer for *Atmospheric Chemistry and Physics, ACS Earth and Space Science*
MIT CEE Diversity, Equity, and Inclusion Committee: Postdoctoral Representative (2022-2023)
UC Berkeley College of Chemistry Junior Faculty Search: Student Committee Member (2020-2021)
University of California Leadership through Advanced DegreeS (UC LEADS): Symposium Judge (2021)