

Lee Feinman

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Boulder, CO

Education

Ph.D. Chemistry
advised by Dr. Rainer Volkamer



Boulder, CO
current

B.S. Chemistry
honors, minor in philosophy



Philadelphia, PA
Jun. '24

My Research Statement:

I do analytical atmospheric chemistry. My research interests focus on the improvement of field-deployable analytical capabilities through instrument and analysis technique development. My current project applies these foci to bromide adduct chemical ionization mass spectrometry (Br-CIMS) for its high sensitivity to oxygenated volatile organic compounds and iodine species.

I pursue my passions for learning, teaching, and discovery through my work. And I am so grateful to do what I love.

Research & Experience

PhD Student, Chemistry

The Laboratory of Dr. Rainer Volkamer, CU Boulder, Boulder, CO

Aug. '24 – current

- Preparing for airborne field deployment to measure glyoxal vertical profiles and eddy covariance fluxes into marine stratocumulus cloud decks, improving understanding of VOC emissions and cloud interactions
- Conducting laboratory calibrations and technical upgrades to Br-CIMS for stable operation across full tropospheric humidity and pressure ranges, including high-altitude conditions
- Proudly instructed general chemistry II labs and recitations

Atmospheric Chemistry Research Assistant Co-op

The Laboratory of Dr. Ezra Wood, Drexel University, Philadelphia, PA

Mar. '23 – Jul. '24

- Operated CAPS and chemiluminescence instruments for NO_x measurements at AEROMMA ground site, NYC
- Supported XO₂ (total peroxy radicals) measurements via Ethane Chemical Amplifier
- Studied OVOCs and PFAS via I-CIMS

Co-op Engineer, Roofing Analytical Team

CertainTeed, Subsidiary of Saint-Gobain S.A., Malvern, PA

Mar. '22 – Sep. '22

- Executed chemical analyses of oxidative aging on asphalt materials by way of ATR-FTIR, LC, DSC, + other methods
- Developed Python programs for ATR-FTIR analysis and ASTM testing method automation

Laboratory Technician Co-op

Oriental Yuhong North America LLC, Lower Gynnedd, PA

Mar. '21 – Sep. '21

- Performance benchmarked new products and authored 3 SOP's for new testing methods

Maryanoff Research Fellow

The Laboratory of Dr. Ezra Wood, Drexel University, Philadelphia, PA

Jan. '20 – Apr. '20

- Improved humidity dependence of the Ethane Chemical Amplifier by dropping reaction chamber pressure

Lee Feinman

Publications, Presentations, & Projects

- Andrew Lindsay, ..., Lee Feinman et al., *Noncombustion Emissions of Organic Acids at a Site near Boise, Idaho*, [link here](#), ACS EST Air, 2024
- Joy Khaled Shaifullah, ..., Lee Feinman et al., *Urban Ozone Formation and Peroxy Radical Chemistry: Insights from the AEROMMA NYC-METS field campaign*, [link here](#), American Geophysical Union, 2024
- Lee Feinman et al., *Emissions of Nitrogen Oxides in NYC: The Carbon Balance Method*, 2023 (first place at PHL ACS Young Chemists Committee poster session)
- [LeeFeinman.com](#): The website I created to track my personal and academic interests & progress, 2023
- *A Review: Higher Than Expected Tropospheric O₃ Production at High NO_x Conditions*, 2023 (term paper for "Chemical Information Retrieval," CHEM 367)
- *Learning Python: Reflecting on an Application Based Project – Translating a Fortran90 Hyper Dual Number Package to a Python Library*, 2022 (doubly served as a contribution to an atmospheric modeling research group & honors project)
- *Improving the Sensitivity of the Wood Group Peroxy Radical Sensor*, 2021 (presented at the Maryanoff Fellowship program symposium)

Teaching

CU Boulder Department of Chemistry

- General chemistry II – TA, recitation & lab Instructor

Drexel Department of Chemistry

- General chemistry I & II – TA, recitation instructor
- Department tutor for 100-level chemistry courses

Achievements, Awards, & Participation

- TA award for excellence in General Chemistry teaching May. '25
- CIRES science illustration contest 1st place May. '25
- CU Air Quality Symposium Committee Member Apr. '25
- Dr. Robert O. Hutchins Endowed Chemistry Prize, \$5,000 May. '24
- Steinbright Partners Program Award, \$6,000 for summer research Jun. '23 – Sep. '23
- Maryanoff Research Fellow Jan. '20 – Apr. '20

Skills

great ● good ● proficient ●

Programming

Python ● Igor & TofWare ● Maple, a computational software ● Matlab ● R ● Web design: HTML, CSS ●

Instrumentation & Lab

chemical ionization mass spectrometry ● cavity attenuated phase shift spectroscopy (cf. cavity ring-down) ● gas-phase plumbing (laminar/turbulent flow, wall-loss, pressure drop, multi-stage dilution, leak detection) ● chemiluminescence ● electronics and circuitry (advanced instrument maintenance) ●

Language

French ●