

# Beth Friedman

“Beth”



**Graduate Institution:** University of Washington

**Location:** Seattle, WA

**Graduate Discipline:** Atmospheric Chemistry

**Hometown:** Bellevue, WA

## Research Interests:

*My research interests involve the chemistry of ice clouds, specifically the chemical composition of particles that initiate heterogeneous ice nucleation as well as the mechanisms involved. The research is motivated by possible climate influences, such as radiative forcings and global cloud coverage in the upper troposphere. I am especially interested in the impacts of aircraft emitted soot—it is unknown if soot can catalyze ice particle formation, and thus unknown if humans are impacting ice cloud formation through anthropogenic emissions directly into the upper troposphere. While pure soot particles are known to be hydrophobic, atmospheric aging and processing may alter the chemical and physical properties of aircraft emitted soot particles, which may then alter their ice nucleating abilities. My research goals are to determine if soot particles can act as heterogeneous ice nuclei and if so, to elucidate the physical conditions and microphysical mechanisms that aid in ice particle formation.*

## About me:

*I am currently finishing my second year as a graduate student in the Department of Atmospheric Sciences at the University of Washington after graduating with a chemistry degree from Carleton College. At the University of Washington, I am a member of Professor Joel Thornton's research group, and I also collaborate with Dr. Daniel Cziczo at the Pacific Northwest National Laboratory (PNNL).*

*I am a member of the American Geophysical Union as well as the American Chemical Society. Aerosol research conducted at Carleton College led to a paper in the *Journal of Geophysical Research-Atmospheres* (Friedman et al., 2009).*

*In the future, I hope to combine my passion for atmospheric chemistry with my enjoyment of advising and interacting with students through teaching, possibly at a small college. Collaborating with PNNL has also led me to consider working at a government research laboratory in the future.*

*Outside of academics, I enjoy exploring Seattle as well as taking advantage of the hiking opportunities outside of the city. I am an enthusiastic baseball fan, and I also enjoy participating in intramural sports and spending time with family and friends.*



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