



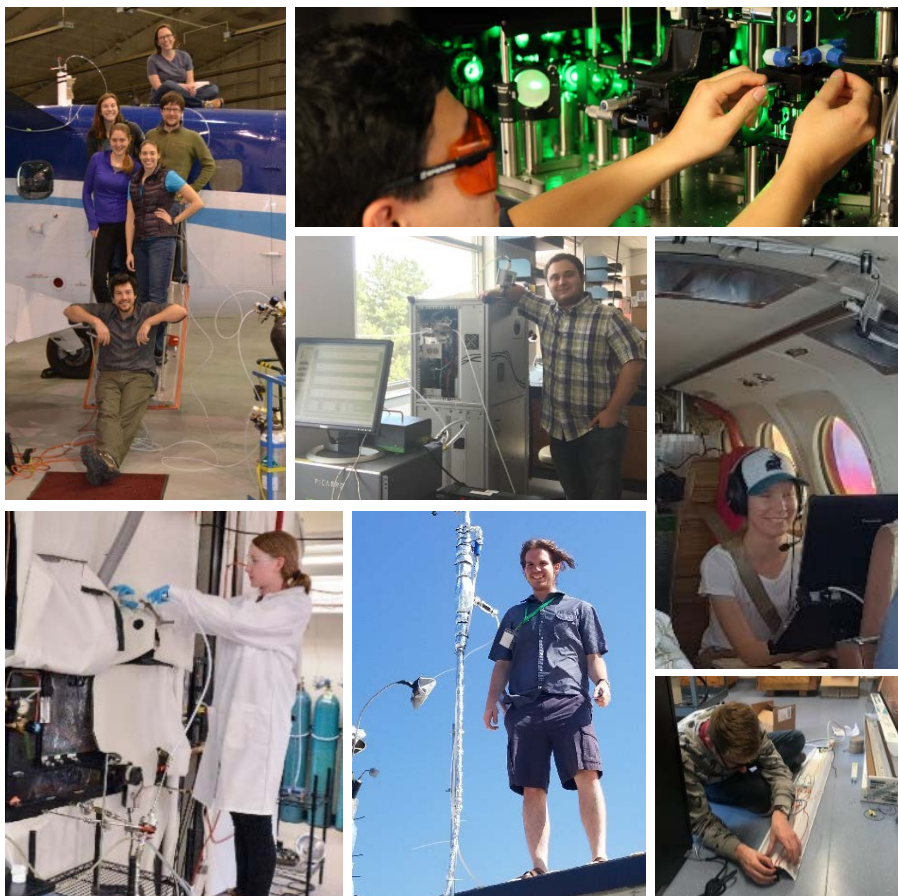
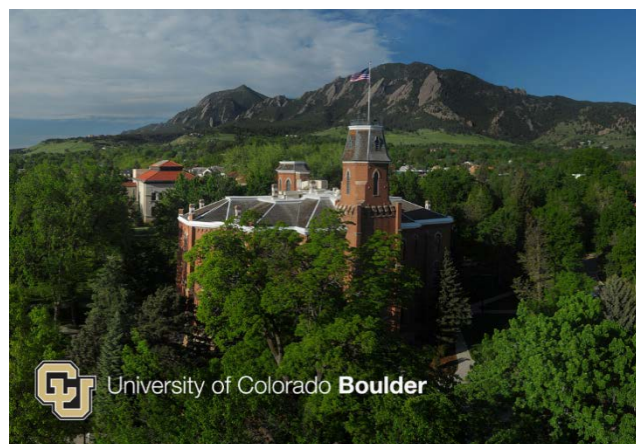
Department of Chemistry

UNIVERSITY OF COLORADO BOULDER

PhD Program in Analytical, Environmental, and Atmospheric Chemistry

Our Research and Facilities:

- CU-Boulder ranked **#1** in Atmospheric science worldwide (2020 Shanghai Ranking)
- World-class laboratory and field programs
 - Aircraft, ship, and ground-based field research
 - New simulation chamber facility
 - State-of-the-art instrumentation
- Collaborations across departments/fields, nationally and internationally, and with the nearby national labs
 - The Boulder area has the largest number of atmospheric scientists and chemists
- ~\$4 million/year research budget, ~50 papers/year



Boulder, CO:

- Bike and pedestrian friendly
- Skiing, biking, hiking, climbing, and more
- Lively downtown (Pearl St)
- 30 min. to Denver

Our Program:

- ~30 grad students and ~10 postdocs/res. scientists,
- All students fully funded by research or department
- Atmospheric chemistry focus within the Chemistry Dept.
- Graduates pursue careers in national labs, academia, industry, policy & government

Examples of Recent Student Research



Quantitative detection of iodine in the stratosphere

volkamergroup.colorado.edu/people/theodore-k-koenig

Theodore Koenig,
Volkamer Lab

PNAS publication:
doi.org/10.1073/pnas.1916828117

Laser Ablation-Aerosol Mass Spectrometry-
Chemical Ionization Mass Spectrometry for
Ambient Surface Imaging
sites.google.com/view/brownelab/people

Analytical Chem publication:
doi.org/10.1021/acs.analchem.7b05255



Jennifer Berry,
Browne Lab

Our Faculty



Eleanor Browne

sites.google.com/view/brownelab

Laboratory and field studies of organonitrogen and organosilicon chemistry, instrument development



Steven Brown (adjoint)

colorado.edu/lab/browngroup

Atmospheric nitrogen oxides, nighttime tropospheric chemistry, and high-sensitivity optical instrumentation



Joost de Gouw

sites.google.com/view/de-gouw-lab

Volatile organic compounds in the atmosphere, mass spectrometry, atmospheric impact of energy systems



Jose-Luis Jimenez

cires.colorado.edu/jimenez

Aerosol composition and sources, aircraft and simulation chamber studies, advanced instrumentation, modeling, disease transmission by aerosols

Margaret Tolbert

cires.colorado.edu/research/research-groups/margaret-tolbert-group

Laboratory studies of particulate matter on Earth, Mars, and Titan



Rainer Volkamer

volkamergroup.colorado.edu/

Small molecules, radicals and aerosols; advanced optical instrumentation; air-surface exchange; oceans; wildfires; energy & environment



Veronica Vaida

colorado.edu/lab/vaidagroup

Spectroscopy and reactivity of atmospheric molecules and radicals



Paul Ziemann

sites.google.com/site/ziemanngroup

Laboratory studies of the products, mechanisms, and kinetics of atmospheric oxidation of organic compounds and aerosol formation; indoor air chemistry



Collaborating Institutions



The Cooperative Institute for Research in Environmental Sciences (CIRES) is a joint research partnership that connects scientists at NOAA and several departments at CU.

NCAR | National Center for
UCAR | Atmospheric Research

NCAR studies the behavior of the atmosphere and related Earth and geospace systems.



RASEI is a joint institute between CU-Boulder and the National Renewable Energy Laboratory (NREL) addressing complex problems in energy with a multidisciplinary, multi-institutional approach.

Interested? Applications for admission into the Department of Chemistry PhD program are due the **1st of December 2020**, for students starting in Aug. 2021.

Opportunities for under-represented students: tinyurl.com/co-diversity-initiative

More application information here:

tinyurl.com/ANYL-1st and colorado.edu/chemistry/prospective-graduate/admission