



Oregon State University
College of Science

Dr. Alison Bain
Assistant Professor
Department of Chemistry

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Description

A postdoctoral scholar position investigating the physical properties of materials of interest for solar radiation management.

The Bain Aerosol Research Lab (bainaerosolresearch.com) is looking for a highly motivated individual to join our team in the Department of Chemistry at Oregon State University (<https://chemistry.oregonstate.edu/>) to investigate the aerosol phase physical properties of materials of interest for solar radiation management. Our research includes spectroscopic and single-particle techniques, high-resolution imaging, mimicking stratospheric conditions, and utilizing laboratory data to develop and test physical models. Candidates with experience in spectroscopy and/or aerosol science are encouraged to apply.

Position Duties

70% Research

The postdoctoral scholar will develop experiments to mimic stratospheric conditions in the laboratory and monitor the physical and chemical properties of particulate matter. They will use characterization techniques such as Raman spectroscopy, IR spectroscopy, scanning electron microscopy (SEM), and X-ray energy dispersive (XRD) spectroscopy to evaluate the morphology and surface chemistry of materials. The postdoctoral scholar will analyze and interoperate results.

20% Reports, Manuscripts, and Proposal Preparation

The postdoctoral scholar will maintain detailed records of laboratory data, prepare reports and manuscripts, and aid in proposal preparation. The postdoctoral scholar should be able to read, write, and analyze data for presentation to other group members.

10% Laboratory Maintenance and Mentoring

The postdoc will contribute to the overall maintenance and cleanliness of the lab. The position requires this lab member to also assist in maintaining laboratory equipment. They will also be responsible for mentoring undergraduate and graduate students in the profession.

Qualifications

The ideal candidate will have a PhD in chemistry, atmospheric science, or a related discipline.

Preferred qualifications:

- Background in aerosol science and technology
- Background in stratospheric chemistry/processes
- Experience in instrument/technique development
- Experience with vibrational spectroscopy of solid/powder samples
- Wet lab experience
- Experience with SEM/XRD
- Python or other coding experience
- Ability to work in diverse and interdisciplinary teams

Application Process

Qualified applicants should email their application documents as a single PDF file to Dr. Alison Bain (alison.bain@oregonstate.edu). Please include a subject header in the Postdoctoral Scholar Position OSU. The requested application submission must include the following:

1. Cover letter and research statement (a brief description of research experience, writing and publication experience, career goals/expectations, future research plans, and efforts to work with graduate and undergraduate students)
2. Full Curriculum Vitae
3. List of references (minimum of three referees with names and contact information)
4. Copies of at least 1-2 first-author publications (publications must demonstrate relevant expertise)

Applications with missing items will not be reviewed.

Appointment Basis: 12 months

Anticipated Appointment Date: March 15, 2025

Full Consideration Date: Open until filled.

OSU values a diverse and culturally competent workforce and commits to inclusive excellence by advancing equity and diversity in all we do. Individuals with diverse backgrounds and those who promote diversity, and a culture of inclusion are encouraged to apply. To request a reasonable accommodation, contact the Affirmative Action and Equal Opportunity Access (EOA) at 541-737-3556 or equal.opportunity@oregonstate.edu