

## **Three-year postdoc position in Geochemical Analysis of extremely old Antarctic ice**

### **Position:**

The Center for Oldest Ice Exploration (COLDEX) is looking to hire a postdoctoral researcher at the Oregon State University ice core laboratory to investigate the geochemistry of some of the oldest polar ice samples ever recovered from Antarctica (1 to 3 million years old).

COLDEX ([www.coldex.org](http://www.coldex.org)) is an NSF Science and Technology Center formed in 2021 to explore Antarctica for the oldest possible ice core records of our planet's climate and environmental history, and to help make polar science more inclusive and diverse.

The postdoctoral researcher will work as part of a collaborative, multi-institutional project that aims to further develop and operate an analytical set up for continuous-flow (CFA) and discrete analysis of various geochemical tracers (water isotopic composition, major ion chemistry, dust, atmospheric methane). The laboratory will be used to analyze ice cores from Antarctic blue ice areas, such as the Allan Hills site, that have been shown to harbor extremely old ice. The new data will significantly extend the existing Antarctic ice core record toward older time periods, providing new climatic insights into past climate periods.

This is a full-time, 3-year position within the College of Earth, Ocean and Atmospheric Sciences (CEOAS) at Oregon State University. The start date is negotiable, but ideally in the Fall of 2022. The postdoc will work under the mentorship of Christo Buizert and Edward Brook, and in close collaboration with other COLDEX researchers at various institutions across the U.S., members of the OSU ice core lab, and the wider paleoclimate community at OSU. The project may involve field work in Antarctica, but this is not a requirement for the position.

### **Responsibilities:**

The successful candidate will contribute to the development of the analytical system at OSU; collaborate with partners from other institutions to integrate analytical capabilities; design measurement protocols; participate in measurement campaigns of very old ice core samples at ultra-high temporal resolution; perform quality control to ensure the integrity of the ice core data; interpret new ice core records in terms of past climatic conditions; use high-resolution data to interpret ice core stratigraphy; conduct Antarctic field work if desired; participate in COLDEX-related events and meetings; collaborate with scientists at OSU, domestically and internationally; disseminate scientific results in peer-reviewed publications and presentations at scientific meetings; assist in the training of undergraduate and graduate students; actively participate in the operations of the OSU ice core lab and its facilities; and participate in outreach and professional development activities. Polar fieldwork in Antarctica is a possibility. Travel to other laboratories and the NSF Ice Core Facility in Denver, CO will be required as part of the position.

### **Qualifications:**

Applicants must have a PhD degree in a relevant area, such as paleoclimate, glaciology, biogeochemistry or Earth sciences at the start of the position; excellent written and verbal communication skills in English; some experience in numerical data analysis (for example in Matlab or Python), effective problem-solving skills and the ability to formulate and design research independently; be highly motivated; and work well within a team of researchers.

Preference will be given to candidates with strong laboratory skills and experience with relevant analytical techniques and instrumentation.

**Application:**

Applications received by July 1, 2022 will be given full consideration. Applicants must send: (1) a cover letter describing academic experience, qualifications, motivation and interest in the position; (2) a curriculum vitae, including current employment and contact information; (3) undergraduate and graduate transcripts; (4) names, addresses, telephone numbers, and email addresses of three professional references; and (5) reprints/ preprints of representative publications. We strongly encourage applicants from under-represented groups (including people of color, women, people with disabilities, and LGBTQ+ candidates) to apply.

Application materials should be sent to Dr. Christo Buizert at [buizertc@oregonstate.edu](mailto:buizertc@oregonstate.edu)

For questions regarding this position please contact Dr. Christo Buizert at [buizertc@oregonstate.edu](mailto:buizertc@oregonstate.edu)

Learn more about COLDEX at <https://coldex.org>

Learn more about the OSU ice core and quaternary geochemistry lab at <https://icecore.ceoas.oregonstate.edu/>