

A postdoctoral research position in the areas of air quality and atmospheric transport is available for collaborative research between Purdue University and the Arequipa Nexus Institute for Food, Energy, Water, and the Environment, Peru. The successful candidate will investigate sources of nitrate and sulfate aerosol pollution in the atmosphere and coordinate a regional rain sampling network to better understand atmospheric processes in the Arequipa region of Peru. Stable isotope tracers of N, S, and water will provide key information in this project.

The Arequipa Nexus Institute for Food, Energy, Water, and the Environment is a collaboration between Purdue University and the Universidad Nacional de San Agustín (UNSA) in Arequipa, Peru that is investigating key environmental, land use, agro-economic, and social challenges limiting the development of adaptive, profitable, and sustainable food-energy-water systems in the Arequipa Region of Peru. The postdoc will be a contributing member of this interdisciplinary research effort. More information about the NEXUS can be found here: <https://www.purdue.edu/discoverypark/arequipa-nexus/en/index.php>

Candidates for this position should have recently completed their PhD, or should expect to complete their degree requirements by the start date, in atmospheric science, atmospheric chemistry, or relevant environmental science program. Previous experience in analysis of stable isotope tracers, atmospheric transport modeling, or geospatial data analysis are preferred. Candidates interested in this position should have a record of scientific achievement, excellent verbal and written communication skills, and an interest in working in an international and interdisciplinary environment geared toward investigating problems related to environmental sustainability. Past participation in international research projects and Spanish language skills are desirable. While the postdoctoral position is based in the Department of Earth, Atmospheric, and Planetary Sciences at Purdue University, West Lafayette, IN USA, the successful candidates will be expected to engage in field and laboratory work in Peru, primarily in the Arequipa region, perhaps for multi-week periods of time. Initial appointments are for 1 year starting Jan 1, 2019 with potential renewal for a second year upon review.

The Purdue labs dedicated to this research maintain analytical instruments, and necessary preparatory labs, that include four stable isotope ratio mass spectrometers (Sercon Hydra and Thermo Delta V) with peripherals for combustion (C, N, S, H), compound specific stable isotope analysis, trace gas (N₂O, CO₂) analysis, carbonates, and dissolved organic and inorganic carbon analysis. The lab also maintains an LGR dedicated to water stable isotope analysis. Successful candidates will also have opportunities to utilize geo-referenced visualization and mapping tools like ARCGIS.

Applicants should supply (a) a curriculum vitae, including a list of publications, (b) a statement of research interests and goals (maximum 2 pages) and (c) e-mail address of three references to: Lisa Welp (lwelp@purdue.edu) and Greg Michalski (gmichals@purdue.edu). Application review will begin immediately with appointments beginning as early as Jan 2019. We will be present at the Fall AGU meeting in Washington D.C. and would like to meet with interested candidates.