



## Postdoctoral Scientist Position at the Landscape Evolution Observatory

We are seeking a motivated and energetic postdoctoral scientist to join a team of geochemists and hydrologists on our newly funded National Science Foundation Project entitled “*Collaborative Research: Concentration - Ratio - Discharge (C-R-Q) Relationships of Transient Water-Age Distributions*”. The research team will combine measurements of isotopic tracers of mineral-water interaction with well-constrained hydrologic transit time distributions to develop a reactive transport model of basalt weathering reactions at the hillslope scale. Specifically, we will pair silicon isotopes ( $\delta^{30}\text{Si}$ ) and germanium-silicon ratios (Ge/Si), which are each uniquely sensitive to the rate and nature of secondary mineral formation in weathering systems, to unmask the balance of secondary precipitation reactions contributing to C-Q observations through expansion to a C-R-Q (concentration – isotope/element ratio – discharge) framework. The research will be conducted using the unique [Landscape Evolution Observatory \(LEO\)](#) facility, which is a replicated set of three highly-instrumented convergent, basaltic hillslopes constructed within the University of Arizona’s Biosphere 2.

**Duties and Responsibilities:** The postdoctoral scientist will hold primary responsibility for coordination and conduct of a series of hillslope-scale, rainfall-irrigation experiments and aqueous geochemical sample collection/analysis to be conducted at LEO. This individual will play a central role in maintaining communication among the project PIs and pushing the project forward to meet scheduling requirements. At the University of Arizona, the postdoc will join the research groups of Profs. [Jon Chorover](#) and [Peter Troch](#) who lead geochemical and hydrologic studies at LEO. The postdoc will also work closely with Prof. [Jennifer Druhan](#) (Project Lead PI, University of Illinois) and [Louis Derry](#) (Cornell) whose groups will focus on sampling and analysis for Si isotopes, Ge/Si ratios, and reactive transport modeling components.

**Qualifications:** Ph.D. in aqueous geochemistry, biogeochemistry, hydrology, or related field. Evidence of capacity to work well in an interdisciplinary team context. Understanding of geochemical and hydrologic analyses and modeling approaches.

**To Apply:** Candidates should please send a (1) cover letter describing interests and background, (2) up-to-date curriculum vitae, and (3) the names and contact information for at least three professional references to Dr. Jon Chorover ([chorover@arizona.edu](mailto:chorover@arizona.edu)).

