

Lauren Gasior, University of Utah, Salt Lake City, UT, for her project: *Quantifying the Reaction Rates of Low-T Serpentinization Using Silicon Isotope Doping Technique*

Lauren Gasior is a second-year master's student at the University of Utah working with Dr. Juan Carlos de Obeso. She earned her Bachelor of Science in Geology with a minor in Astrobiology from Rensselaer Polytechnic Institute



in 2020, where she performed low-temperature experiments analyzing the mobility of lithium in quartz. Afterwards, she worked as a program analyst for the U.S. Environmental Protection Agency, combining geospatial, environmental, and demographic data to improve environmental and public health programs before returning to academia to pursue her master's degree in geology.

Lauren's current research focuses on understanding the kinetics of serpentinization in low-temperature and low-pressure systems, employing a novel isotopic technique where the experimental fluid is doped with ^{29}Si to monitor changes in solution chemistry with silicate mineral alteration. The funding from the Howard and Jean Lipman Foundation will be used for isotopic analysis of these experiments, primarily using ICP-MS. The purpose of this project is to explore the potential of olivine-rich mantle peridotites for mineral-based carbon sequestration and storage as well as hydrogen production for clean energy.

In addition to this research project, Lauren is passionate about science communication and outreach. She is also a Science Communication Fellow at the Natural History Museum of Utah, where she gives science talks and organizes hands-on geology activities for the public.