

Juliana Curtis, Colorado State University, Fort Collins, CO, for her project:
Why does Ko'olau Volcano, Hawai'i lack a postshield volcanic stage?

Juliana Curtis is a Geoscience M.S. student at Colorado State University, studying igneous petrology, volcanology, and geochemistry of the Hawaiian Mantle Plume under the advisory of Dr. Lauren Harrison. She received her B.S. in Geology, Environmental Science, and Geographic Information Systems from Miami University of Ohio, where her undergraduate research on megacrystic K-feldspars from the Shoshone Granite, Nevada sparked her interest in the field of igneous petrology.



With the generosity of the Lipman Grant, she will be able to complete her M.S. thesis on the Makapu'u Sequence of lavas from Ko'olau Volcano, O'ahu, the most isotopically enriched endmember of the Hawaiian chain (Enriched Loa). Her project involves detailed electron probe microanalyzer (EPMA) analysis with goals of interrogating the chemistry of phenocryst populations and performing diffusion chronometry modeling of olivine. Her project will provide the first magma residence timescales for this geochemical endmember and contribute to the decades-long debate about the petrogenesis of Enriched Loa basalts. This project will offer critical insights into the magmatic processes and plumbing system dynamics of Enriched Loa volcanoes, potentially providing vital information for hazard mitigation.

Juliana is appreciative of the Howard and Jean Lipman Foundation and the Geological Society of America for providing funds which make her thesis research possible.