Jennifer Thines, University of Iowa, for her proposal: *Timescales of large-volume silicic magma generation revealed by geothermometry and diffusion chronometry*

Jennifer Thines is a fourth year Ph.D. candidate at the University of Iowa studying under Dr. Ingrid Ukestins. Her project focuses on the generation and eruption of large-volume silicic magmas from the Oligocene Afro-Arabian Large Igneous Province (LIP). The project aims to characterize the geochemical heterogeneity within and between multiple eruptions from 30.2 to 27.7 Ma. The main units are voluminous (150 to >1000 km³ with one eruption up to ~3100 km³) and laterally extensive (ca. 30,000 km²) with eruptive intervals as short as 30 to 700 ka. The GSA Lipman Award will be used to perform electron probe microanalyzer (EPMA) analyses of sanidine in order to perform diffusion chronometry. Modelling of Ba, Sr and Mg diffusion in sanidine to calculate the timescales of the formation of overgrowth rims and magma rejuvenation. The results will be combined with major and trace element data, mineral chemistry of feldspar, pyroxene, amphibole and Fe-Ti oxides, radiogenic isotope analyses, and CA-TIMS U-Pb zircon ages to assess the various roles of fractional crystallization, magma recharge and crustal contamination during magma genesis.

Jennifer grew up in southern Georgia before eventually moving to New Mexico to obtain her B.S. in Geology from New Mexico State University. She has always been fascinated with volcanoes and took every opportunity to visit them during family vacations as a child. It was during her time in New Mexico that she discovered her passion for geochemistry and igneous petrology.