

Tomas Guerreiro, University of Arizona, Tucson, Arizona, USA for his project: *Ti-isotope fractionation along a lower-to-middle crustal cumulate section*.

I am a second-year master's student in the Department of Geosciences at the University of Arizona, Tucson, working under the supervision of Dr. Mauricio Ibáñez-Mejía. My research focuses on petrology, high-temperature geochemistry, and stable isotope geochemistry, with an emphasis on understanding how Ti isotopes fractionate during magmatic differentiation in arc settings.

Using the Ordovician Famatinian arc of Argentina as a natural laboratory, my research investigates the variables that control Ti-isotope fractionation during crustal differentiation. In particular, I examine the roles of mineral assemblages, mineral chemistry, melt composition, and redox conditions in producing the Ti-isotope variations observed in magmatic arcs worldwide.

Support from the Lipman Student Research Grant enables the whole-rock geochemical analyses and petrographic characterization of approximately 40 rock samples. These data provide the geological and geochemical framework necessary to interpret Ti-isotope signatures.

I'm from Córdoba, Argentina, and I earned my B.Sc degree in geology from Universidad Nacional de Río Cuarto, Argentina. I then moved to the USA to pursue my MSc at the University of Arizona, where I am currently. At the University of Arizona, I am a teaching assistant and work with undergraduate students in geology labs. I also work as a Research Assistant at the Arizona LaserChron Center (ALC), and I'm part of the Stable Isotopes Laboratory (AHIL). I am ecstatic to apply this grant to my research project and further the skillset I will need to succeed in my career as a geochemist.

