

# University of Arizona Geosciences Fall 2019

## Geochemistry and Mineralogy



### Greetings Alumni!

Faculty and students in geochemistry and mineralogy within the UA Geosciences have produced outstanding research this past year for which they have received numerous awards. This newsletter presents highlights from 2019 within the geochemistry/mineralogy group.

### Faculty



From left to right: Pete Reiners, Bob Downs, Jay Quade, Mihai Ducea

**Pete Reiners** has been appointed College of Science Associate Dean of Research. He has also been named a 2019 AGU Fellow. Pete has supervised the development and opening of the new Arizona Noble Gas Lab, which is equipped with mass spectrometers with state-of-the-art high-resolution, high-sensitivity, and multi-collection capabilities.

**Bob Downs**, Director and Curator of the UA Alfie Norville Gem and Mineral Museum, is focused on moving the museum into the historic Pima County Courthouse in Spring 2020. The museum is scheduled to open by Fall 2020 and will host a larger opening during the Tucson Gem and Mineral Show.

**Jay Quade** has been focused on better constraining the geochronology and paleoenvironment of the early hominid fossil record by analyzing the fossil record in the Pliocene Mt. Galili Formation of Ethiopia. This formation hosts numerous hominid and non-hominid fossils.

**Mihai Ducea** has been investigating global changes in continental magmatism, tectonism, and crustal thickness using detrital zircon geochronology and trace element geochemistry. Mihai continues to serve as co-editor for GSA Today.

### Graduate Students

This year, we celebrated the graduation of graduate students Derek Hoffman (MS) and Ursula Ginster (PhD).

### Current Graduate Students

**Anthony Krupa** has been analyzing O and H isotopes from Himalayan and Tibetan rocks with the goal of reconstructing paleo-elevation in order to better constrain the tectonic evolution of the Indian-Asian collision. In 2019, Anthony received the Galileo Scholar award.

**Lydia Bailey** has been researching the evolution of crustal paleo-fluid flow in the Paradox Basin by investigating the geochemical and mineralogical changes that occur during fluid-rock interaction. She presented her work as a poster at Goldschmidt 2019. She also won Best Graduate Talk at GeoDaze 2019.

**Melli Rose** has been focusing on analyzing and characterizing the new mineral eddavidite, the Br analogue of murdochite. In 2019, Melli received the Galileo Scholar award and the Chevron Texaco Geology Fellowship

### New Graduate Students

**Emilie Bowman:** PhD student, advisor: Mihai Ducea

**Anca Barla:** MS student, advisor: Mihai Ducea

**Brandon Levenstein:** PhD student, advisor: Pete Reiners

**Nitzan Yanay:** MS student, advisor: Jay Quade