

## University of New Mexico (UNM) Ph.D. Fellowship in High Pressure Earth and Planetary Sciences

The Department of Earth and Planetary Sciences and the Institute of Meteoritics at UNM is seeking applicants to the Ph.D. program (beginning Fall 2019) for a prestigious 5-year Research Fellowship in *High Pressure Earth and Planetary Sciences*, with full financial support from the Sandia/UNM Pulsed power Extreme condition Research (**SUPER**) Center.

The Institute of Meteoritics (IOM), founded at UNM in 1944, was one of the first institutions in the world devoted to the study of meteorites, and over the past 74 years has earned a reputation as a premier center for research on planetary materials, featuring a unique collection of over 1200 meteorites, most of which are extremely rare, including samples from Mars, the Moon, and many unusual asteroids. Currently, IOM has several significant research initiatives to study meteorites, solar system evolution, the surfaces of Mars and the Moon, and the extreme conditions that exist in the Earth and planetary interiors. The IOM is also the host academic institution for the NSF-funded Consortium for Materials Properties Research in Earth Sciences (COMPRES) that represents 68 US member institutions and enables researchers to conduct the next generation of high-pressure science on world-class equipment and facilities. The Department of Earth and Planetary Sciences (EPS) is co-located with IOM and COMPRES in Northrop Hall on the UNM Main Campus and offers major research programs that include mineral physics, experimental petrology, geophysics, geochemistry, and seismology.

The Pulsed Power Sciences Center at Sandia National Laboratories is a world leader in the area of dynamic compression of matter to extreme states. Home of the Z machine, a unique pulsed power facility, the Center utilizes its major experimental, theoretical, and computational capabilities to conduct research in areas related to the behavior of matter across wide ranging and exotic timescales, strain rates, electromagnetic fields, and thermodynamic regimes.

The successful candidate will have a primary advisor at UNM and will also collaborate with scientists at SNL. Research projects in areas related to high energy density science applied to understanding material properties in planetary interiors will take advantage of the unique experimental facilities at SNL such as the Z-machine and Thor pulsed power platforms, as well as the STAR gas gun facility, to conduct cutting-edge research on topics such as the Earth's core, its origin and magnetic field, the cycle of water in the Earth's deep interior, the giant-impact moon-forming hypothesis, and the exotic interiors of super-Earth exoplanets.

**Eligibility and Application:** A Master's Degree in Earth and Planetary Sciences or related science (e.g.: materials science, chemistry, physics, engineering) is required for admission into the Ph.D. program. However, exceptionally well prepared and focused candidates with a Bachelor's Degree will also be considered. This opportunity is available to U.S. citizens only. To apply for admission to the EPS Ph.D. program please follow the directions at this link: <http://epswww.unm.edu/graduate-degree-programs/>. Fellowship applicants should also send a notification of this application by email to Dr. Carl Agee [agee@unm.edu](mailto:agee@unm.edu), with cc to Beth Ha [beth3ha@unm.edu](mailto:beth3ha@unm.edu).

