Isotope Geochemistry Laboratory Associate

The University of Maryland, Baltimore County (UMBC) invites applications for a lab technician in the isotope ratio mass spectrometry (IRMS) lab as a part of the Planetary Environments Laboratory at NASA/Goddard Space Flight Center (GSFC) in Greenbelt, MD. The position consists of an appointment in UMBC’s Center for Space Sciences and Technology (CSST), funded by NASA through the Center for Research and Exploration in Space Sciences & Technology II (CRESST II) cooperative agreement.

The ideal candidate will have demonstrated experience with analytical methods that involve both inorganic and organic geochemical approaches to understanding the isotopic composition of geologic and biologic materials. Applicant should have experience operating and troubleshooting isotope ratio mass spectrometers (IRMS) with peripheral instruments such as elemental analyzers, gas chromatography, pyrolysis and combustion reactors, and trace gas preparation and preconcentration devices. Position responsibilities include the following: operation and routine maintenance of mass spectrometry facilities, and sample preparation and analysis of geological and planetary analog samples for carbon, nitrogen, sulfur, oxygen, and hydrogen isotopic ratios and abundance using multiple IRMS and MS techniques including elemental analysis and gas chromatography.

This position would also support ongoing R&A projects in the lab and include ocean worlds analog experiments, method development for pyroprobe-GC-IRMS, and analysis of geological and synthetic samples. Analyses performed by this candidate will include total organic carbon/carbonate isotope analysis, compound specific isotope analysis, programmed pyrolysis, and headspace analysis of liquid-gas equilibrations.

A bachelor’s degree in chemistry, geochemistry, hydrogeology, planetary science, geology, or a closely related field and at least 2 years of applicable experience is required. A master’s degree in a related field is desirable. Good communication and laboratory documentation skills are required, as well as the ability to handle multiple projects at once.

The initial funding for this position will be for 2 years, with possible extension pending performance and funding. Applicants must be able to start on site at NASA/GSFC in Summer 2021. The position will remain available until filled but applications received by May 30, 2021 will receive best consideration. Each applicant should send a Curriculum Vita, 1–2-page statement of research interests and experience, and contact information for three references to:

Application materials should be submitted to:
Isotope Geochemistry Lab Associate
CRESST/UMBC
Mail Code 660.8, NASA/GSFC
Greenbelt, MD 20771, or
Via e-mail to katherine.s.mckee@nasa.gov

Salary and benefits are competitive, commensurate with experience and qualifications. For more information about the proposed research, contact Dr. Jen Stern (jennifer.c.stern@nasa.gov). For
information on CRESST II or UMBC, contact Dr. Don Engel (donengel@umbc.edu). UMBC is an equal opportunity employer and welcomes all to apply. EOE/M/F/D/V.