Astrobiology Analytical Laboratory Associate

Applicants are now being accepted for a lab technician in the Astrobiology Analytical Lab as a part of the Astrochemistry Branch at NASA/Goddard Space Flight Center (GSFC) in Greenbelt, MD. This position will support cutting-edge research into the organic content of extraterrestrial samples, including meteorites and returned material such as asteroid samples from NASA’s OSIRIS-REx mission, as well as unique environmental samples relevant as planetary analogs. The position consists of an appointment in CUA’s Department of Physics, 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 gas chromatography and advanced mass spectrometry techniques for the derivatization and analysis of organic compounds in natural samples. Applicant should have experience operating, maintaining, and troubleshooting gas chromatography-mass spectrometry (GC-MS) instrumentation, as well as method development and organic analysis. Pyrolysis-GC-MS experience is also highly desirable. Position responsibilities include the following: operation and routine maintenance of a variety of GC-MS instrument suites, including GCxGC-high resolution MS, compound-specific GC combustion stable isotope ratio mass spectrometry (GC-c-IRMS), and GC-quadrupole systems; sample preparation and analysis of organic compounds with various derivatization methods; and method development for pyrolysis-GC-MS analyses.

This position will also support ongoing research and analysis projects in the lab, including development of solid-phase microextraction (SPME) techniques, preparing and analyzing samples related to meteorite alteration experiments, as well as development and optimization of protocols for the extraction and analysis of (hyper)volatiles in extraterrestrial samples. Projects could include analyses of precious and irreplaceable samples such as meteorites, Apollo samples, and samples returned from asteroid Bennu.

A bachelor’s degree in chemistry (analytical, organic, environmental), organic geochemistry, biochemistry, astrobiology, 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 2022. All faculty and staff who are employed with CRESST II and CUA at NASA/GSFC are required to be vaccinated against COVID. Proof of full vaccination will be required before the start of employment.

The position will remain available until filled but applications received by March 1, 2022, 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 directly via email to Ms. Katherine McKee (katherine.s.mckee@nasa.gov).

For more information about the position and duties, contact Dr. Jaime Cook (jamie.e.cook@nasa.gov). For information on CRESST II or CUA, contact Dr. Tommy Wiklind (wiklind@cua.edu). We are committed to building a diverse group and encourage applications from women, racial and ethnic minorities, individuals with disabilities and veterans. Catholic University of America is an Affirmative Action, Equal Opportunity Employer.