

Alabama Research Experiences for Undergraduates



Project Title:

Iodine Plasma Interaction with Spacecraft Materials

Project Reference Code:

UA-Branam2

Host Facility:

The University of Alabama

Host Facility Location:

Tuscaloosa, AL 35487 https://www.ua.edu/

Project Description:

Before spacecraft designers will attempt to use iodine as a replacement for xenon in space plasma thrusters, they need to know how the iodine and iodine plasma will affect the spacecraft. The current project is exposing several s/c material samples to expected plasma conditions for the cathode, thruster and structure.

Disciplines:

Plasma Physics, Materials Science

Is U.S. citizenship required to participate in this project?

No

Internship Location and COVID-19 related Backup Plan

Due to the COVID-19 pandemic, we are preparing multiple options to ensure that the internship will take place. We are looking at least at an in-person, hybrid, and fully virtual option. For any in-person component we will ensure that there is adequate physical spacing between workspaces, following all university cleaning protocols.

Name(s) of Mentor(s) and contact information:

Richard Branam (rdbranam@eng.ua.edu)

Internship Coordinator/ HR manager:

Amy Lang (alang@eng.ua.edu)

The name and contact information of personnel at the host facility is provided for further assistance with questions regarding the host facility or the project.

Interns will not enter into an employee/employer relationship with the host facility. No commitment with regard to later employment is implied or should be inferred.