

Reflectance Experiment LABoratory (RELAB)

PI: Ralph Milliken/Brown University

https://sites.brown.edu/relab/

Description of Facility

- Spectral reflectance and transmission data of Earth and planetary materials at visible-near-mid-far infrared wavelengths
- Custom bi-directional spectrometer (BDR) for reflectance or transmission measurements; viewing geometry can be changed for photometric studies; FTIR and microscope FTIR for reflectance and transmission measurements
- 100% available for community use
- Analyses done by facility personnel or by visitors
- No restrictions for short term use; long term or independent use requires completing university lab safety training

How to use the facility

- E-mail <u>Ralph_Milliken@brown.edu</u> and <u>Takahiro_Hiroi@brown.edu</u>
- All requests for feasible measurements are accepted
- Requests are prioritized based on first-come firstserve basis; large number of measurements for single user may be interspersed with other user measurements; NASA-funded researchers given priority
- No charge to users other than costs for shipping materials to and from the facility



Left: Close-up image of portion of the custom bi-directional spectrometer showing exiting path for light reflecting off of sample surface. Right: Existing microscope FTIR and benchtop FTIR for acquiring near-mid-far IR spectra; these instruments will be upgraded in 2023 as part of PSEF funding.

Contact information:

Department of Earth, Environmental & Planetary Sciences Brown University Campus Box 1846 (FedEx samples to: 324 Brook St.) Providence, RI 02912

For measurement requests and lab use, contact:

Dr. Takahiro Hiroi <u>Takahiro_Hiroi@brown.edu</u>

401-863-3776

Planetary Science Enabling Facilities