

# Stand-Off Raman Spectroscopy for Planetary Science

Due to its ability to identify different materials even over large distances Raman spectroscopy is a valuable tool in planetary science, for example used on Mars Rover missions. Researchers from the University of Hawaii report on new methods for analysis of data from an interferometric Raman spectrometer that is used for stand-off detection of Raman signals. The two-dimensional interference pattern is collected with an ICCD as it allows detection of signals in daylight by adjusting the gate to collect Raman signal produced by a pulsed laser. Fourier transform of the interference pattern reveals the Raman spectrum.

**Featured Paper/ Publication:** [Optimizing Data Reduction Procedures in Spatial Heterodyne Raman Spectroscopy with Applications to Planetary Surface Analogs](#),  
Applied Spectroscopy, 2018

**Reference Lab:** Shiv Sharma, University of Hawaii, USA

**Products used:** [PI-MAX](#)