Thursday, March 24, 2016 [R644]
POSTER SESSION II: INSTRUMENT CONCEPTS: RAMAN SPECTROSCOPY
6:00 p.m. Town Center Exhibit Area

Abedin M. N. Bradley A. T. Misra A. K. Sharma S. K. Osmundsen J. ***POSTER LOCATION #648***
Ultra-Compact Raman Spectrograph for Planetary Surface Inspection **[#1085]**
Discussed the limitations of the traditional micro-Raman systems; and needs for a greater sensitivity and faster equipment for NASA exploration programs.

Yan Y. Wang A. Wei J. ***POSTER LOCATION #649***
Shifted Excitation Raman Differentiated Spectroscopy (SERDS) for Planetary Surface Exploration **[#2210]**
We conducted a set of successful SERDS tests on ten natural rocks that suggests a data process in geo-applications should be different from standard SERDS.

Dyar M. D. Breitenfeld L. B. Carey CJ.
Bartholomew P. Tague T. J. et al. ***POSTER LOCATION #650***
Interlaboratory and Cross-Instrument Comparison of Raman Spectra of 96 Minerals **[#2240]**
We compare Raman spectra of a suite of 96 pure mineral powders acquired on 11 different Raman instruments using an array of geometries and laser energies.

Breitenfeld L. B. Dyar M. D. Tague T. J. Wang P. Mertzman S. et al. ***POSTER LOCATION #651***
Quantifying Mineral Abundances in Mixtures Using Raman Spectroscopy: Calculating Raman Coefficient Using a Diamond Reference **[#2186]**
Binary mixtures of minerals with diamond are used to calculate Raman Coefficients that permit quantitative estimates of mineral modes from Raman spectra.

Breitenfeld L. B. Dyar M. D. Crowley M. C. Leight C. Watts E. ***POSTER LOCATION #652***
Quantifying Mineral Abundances in Mixtures Using Raman Spectroscopy: Creating Mineral Mixtures **[#2430]**
Binary mixtures of minerals have been created to test unmixing models for Raman spectroscopy.

Carrier B. L. Beegle L. W. Bhartia R. Abbey W. J. ***POSTER LOCATION #653***
Measurement of UV Fluorescence and Raman Signatures of Organic Compounds in the Subsurface of Mars Relevant Minerals to Constrain Detection Depth for the SHERLOC Mars 2020 Instrument **[#2660]**
Using UV fluorescence and Raman spectroscopy to detect organics in mineral subsurfaces to determine detection depths for the SHERLOC Mars 2020 instrument.

Clegg S. M. Wiens R. C. Newell R. Maurice S. Gasnault O. et al. ***POSTER LOCATION #654***
Integrated Geochemical and Mineralogical Analysis by Remote LIBS, Raman and Time Resolved Fluorescence Spectroscopy **[#2037]**
The integrated geochemistry and mineralogy that is determined by Raman, TRF, and LIBS is discussed.

Sobron P. ***POSTER LOCATION #655***
Exploring Europa with Raman and LIBS **[#1745]**
The elemental/molecular features of water ice mixed with salts and organics relevant to Europa can be determined using Raman and LIBS.

Misra A. K. Sharma S. K. Berlanga G.
Acosta-Maeda T. E. Clegg S. M. et al. ***POSTER LOCATION #656***
Remote Raman Detection of Feldspars Under Daylight Condition Using a Compact Remote Raman+LIBS+Fluorescence System **[#1408]**
We demonstrate the remote Raman capability to detect various types of feldspars, e.g., microcline, orthoclase, and plagioclase from a distance of 5 m.

Lamsal N. Barnett P. Angel S. M. Sharma S. K. Acosta T. E. ***POSTER LOCATION #657***
Remote UV Raman Spectroscopy for Planetary Exploration Using a Miniature Spatial Heterodyne Raman Spectrometer **[#1500]**
A new type of miniature Fourier transform (FT) Raman spectrometer is being developed for planetary exploration and stand-off measurements.

Berlanga G. Misra A. K. Acosta-Maeda T.
Sharma S. K. Clegg S. M. et al. ***POSTER LOCATION #658***
Remote Raman Detection of Natural Rocks **[#2895]**
Remote Raman detection of natural rocks at 5 m distances using Compact Remote Raman+LIBS+Fluorescence System (CRRLFS) for planetary surface chemical analysis.