Tuesday, March 22, 2016 [T320]
POSTER SESSION I: SPECTROSCOPY OF MINERALS AND MARS ANALOG MATERIALS
6:00 p.m. Town Center Exhibit Area

McGraw L. E. Elwood Madden M. E. Phillips-Lander C. M.
Parnell S. Elwood Madden A. S. ***POSTER LOCATION #314***
Development of a Rapid, Nondestructive Method to Measure Aqueous Carbonate and Perchlorate in High Salinity Brines Using Raman Spectroscopy **[#2728]**
This abstract details the beginning stages of developing a rapid and nondestructive method of remotely measuring solutes in brines using Raman spectroscopy.

Elwood Madden M. E. Phillips-Lander C. M. Burkhart J. W.
Johnson J. R. Kosemund C. R. et al. ***POSTER LOCATION #315***
Raman Measurement of Solute Chemistry in Brines for Remote Analysis of Planetary Fluids **[#1131]**
Laser zapping brine produces Raman signals, measuring solutes .

Hamilton D. Daly M. G. Cloutis E. A. Tait K. ***POSTER LOCATION #316***
A Raman Spectroscopy Comparison of an Iron-Bearing and a Non-Iron-Bearing Sulphate at Both Green and UV Excitation Wavelengths **[#2138]**
Ligand-metal charge transfer in transition metal complexes causes intense and broad absorption bands which hinders UV Raman of Mars analogue iron sulphates.

Hibbert R. Price M. C. Kinnear T. M. Burchell M. J. ***POSTER LOCATION #317***
The Effects of Temperature on the Raman Spectrum of Labradorite Crystals **[#1446]**
Our work has shown that the Raman peak positions of labradorite crystals shift while the sample is being subjected to temperature changes.

Benedix G. K. Hamilton V. E. Reddy S. M. ***POSTER LOCATION #318***
μ-FTIR Spectroscopy and Electron Backscatter Diffraction of Martian Shergottite Robert Massif 04262 **[#1951]**
Martian minerals provide accurate spectral analogs for Mars.

De Angelis S. Manzari P. De Sanctis M. C. Ammannito E. Di Iorio T. ***POSTER LOCATION #319***
Hyperspectral Micro-Imaging of Martian Shergottite Northwest Africa 8657 Fragment in the Visible-Infrared Range **[#1223]**
Laboratory study has been performed on a slab of martian meteorite Shergottite NWA 8657, by means of high spatial resolution VIS-IR hyperspectral micro-imaging.

Wu Z. C. Wang Alian. ***POSTER LOCATION #320***
Oxidants Generated by Electrostatic Discharge in a Martian Environmental Chamber — Implication for Perchlorates Formation on Mars **[#2227]**
We experimentally demonstrated that wide variety and large amount of oxidants were generated by Electrostatic Discharge (ESD) under Mars relevant conditions.

Rogers A. D. Gregerson J. Sklute E. C. Rucks M. Jensen H. B. et al. ***POSTER LOCATION #321***
Sequestration of Mixed Salts in the Amorphous Soil Fraction on Mars **[#1736]**
Rapid dehydration products of chloride-sulfate and carbonate-sulfate brine mixtures can form X-ray amorphous solids. Spectra and stability are reported.

Bishop J. L. Davila A. Hanley J. Roush T. L. ***POSTER LOCATION #322***
Dehydration-Rehydration Experiments with Cl Salts Mixed into Mars Analog Materials and the Effects on their VNIR Spectral Properties **[#1645]**
VNIR spectra measured of Mars analogs enriched in Cl salts as the samples adsorbed H_2O from the air showed changes in the spectral properties of the Cl salts.

Losiak A. Derkowski A. Skala A. Trzciński J. ***POSTER LOCATION #323***
Evaporites on Ice: How to Form Gypsum on Antarctica and on Martian North Polar Residual Cap? **[#1972]**
We plan to determine how many melting-freezing cycles are required to form detectable amounts of evaporites under simulated Antarctic and martian conditions.

Bramble M. S. Mustard J. F. ***POSTER LOCATION #324***
Investigating the Antarctic Meteorite Analog of Carbonate Formation on Mars **[#2553]**
Carbonates on Mars / Did they form when cold and dry? / Let's see in the lab!

Fu X. H. Wang A. L. Krawczynski M. J. ***POSTER LOCATION #325***
Characterizing Silicate Glasses with Vibrational Spectroscopy **[#2470]**
We built a calibration curve using Raman peak area ratios to semi-quantify the polymerization degrees of silicate glasses, and validated using natural glasses.

Wright S. P. ***POSTER LOCATION #326***
Shocked Soils and Baked Zones from a Basaltic Target Provide Insight into Mars Sample Return Goals and Detections of Impact Glass **[#1001]**
Pre-impact soils and baked zones now exist as clasts in impact breccia. Sample analyses have implications for Mars sample return and detections of impact glass.