Thursday, March 19, 2015 [R732]
POSTER SESSION II: ALTERATION ON MARS: THE VIEW FROM ORBIT
6:00 p.m. Town Center Exhibit Area

Scudder N. A. Glotch T. D. Liu Y. Condus T. ***POSTER LOCATION #404***
Hapke-Based Linear Spectral Unmixing of CRISM Single Scattering Albedo Data **[#2977]**
Introduction of a Hapke-based linear unmixing model for VNIR single scattering albedo CRISM data. The model is applied to a target area on Mars with good results.

Bultel B. Klein F. Andréani M. Quantin C. ***POSTER LOCATION #405***
Serpentinization and Carbonation of the Martian Crust with Chlorine-Rich Fluids **[#2128]**
Modeling of fluid rock interaction with chlorine-rich fluid for serpentinization and carbonation of the martian crust.

Bultel B. Quantin C. Flahaut J. Andréani M. ***POSTER LOCATION #406***
Carbonates and Phyllosilicates Detections in Coprates Chasma, Valles Marineris, Mars **[#2112]**
Crustal exposure of carbonates and phyllosilicates in the wall of Coprates Chasma.

Huang J. Salvatore M. R. Christensen P. R. Xiao L. ***POSTER LOCATION #407***
Chlorides Predated Clay in a Lacustrine Environment on Mars and Its Astrobiology Application **[#1918]**
Here we identify that chlorides are stratigraphically below iron-magnesium smectite clay in a basin west of Knobel Crater (near Gale Crater).

Horgan B. Rice M. S. Ackiss S. ***POSTER LOCATION #408***
Constraints on the Formation and Alteration History of Mt. Sharp, Gale Crater, Mars, from a New CRISM Mineral Map **[#2943]**
New mineral mapping at Gale Crater shows diversity in the mineral stratigraphy around the mound, iron redox reactions, and supports a pyroclastic upper mound.

Weitz C. M. Bishop J. L. ***POSTER LOCATION #409***
Stratigraphy and Distribution of Clays Within Coprates Catena and Hydrae Chasma **[#1383]**
Two depressions in Coprates Catena contain clays in sedimentary deposits and terraced fans. Layered Fe/Mg-smectites dissected by valleys occur in Hydrae Chasma.

Korn L. K. Gilmore M. S. ***POSTER LOCATION #410***
Possible Carbonate Minerals Within an Unnamed Gullied Crater in Eridania Basin, Mars **[#2224]**
Potential ankerite, siderite, aragonite, and/or brugnatellite mineral mixtures with silicates have been found in a gullied crater in Eridania Basin, Mars.

Amador E. S. Bandfield J. L. ***POSTER LOCATION #411***
Localized Alteration of the Capping Unit in Nili Fossae, Mars: Evidence for Multiple Episodes of Aqueous Alteration **[#1189]**
We present evidence for the localized alteration of the capping unit in NE Nili Fossae, adding to the complex and diverse aqueous history of the region.

Brown A. J. Bishop J. L. Viviano-Beck C. ***POSTER LOCATION #412***
Spectral Analysis of Carbonate Deposits at Nili Fossae, Mars **[#2701]**
We report on an analysis program to learn more about signatures of carbonate spectra at Nili Fossae in order to better characterize their formation processes.

Tirsch D. Bishop J. L. Voigt J. Tornabene L. L. Erkeling G. et al. ***POSTER LOCATION #413***
Diverse Morphology and Mineralogy of Aqueous Outcrops at Libya Montes, Mars **[#1738]**
We present the results of a photogeological mapping as well as the various morphologies of aqueous mineral outcrops and deduce a probable formation history.

Flahaut J. Offringa M. Rossi A. P. Poulet F. Carter J. et al. ***POSTER LOCATION #414***
Hydrated Mineral Detections in Arabia Terra: Another Evidence for Two Episodes of Deposition at Meridiani **[#2569]**
This present study describes the mineralogy, morphology, and extent of the Arabia Terra deposits and compares them to the sediments of Meridiani Planum.

Wiseman S. M. Beyer R. A. ***POSTER LOCATION #415***
Stratigraphy of Phyllosilicate and Hydrated Sulfate Deposits in Eastern Sinus Meridiani **[#2143]**
Fe/Mg smectites correlate with a stratigraphic horizon, whereas hydrated sulfates were deposited in topographic lows after erosion of older sedimentary units.

Robertson K. M. Li S. Milliken R. E. ***POSTER LOCATION #416***
Estimating Modal Mineralogy of the Mawrth Vallis Region, Mars Using Visible-Near Infrared Radiative Transfer Models **[#1962]**
We apply Hapke modeling to CRISM spectral data from Mawrth Vallis to estimate modal mineralogy and test the ability to differentiate minor and major phases.

Gross C. Carter J. Tornabene L. L. Sowe M. Bishop J. L. ***POSTER LOCATION #417***
Stratified Phyllosilicate-Bearing Deposits Within Impact Craters in the Northern Plains of Mars **[#1817]**
We report the presence of uplifted, stratified, phyllosilicate-rich material in a set of 50-km-wide impact craters located in the northern plains of Mars.

Jain N. Chauhan P. ***POSTER LOCATION #418***
Identification of Deposits of Aqueous Minerals in Northern Part of Hellas Planitia Region on Mars Using MRO-CRISM: Implications for Past Aqueous History of Mars **[#1838]**
Aqueous minerals from the northern part of the Hellas Planitia region on Mars give hints about the past environment history of Mars.

Hanna R. D. Hamilton V. E. ***POSTER LOCATION #419***
Evidence for Localized Variations in Olivine Weathering on Mars **[#2481]**
Using modeled olivine content and thermal inertia derived from TES and THEMIS, we examine several areas that display differing trends of olivine weathering.

Allender E. J. Stepinski T. F. ***POSTER LOCATION #420***
Towards Automatic Exploratory Mineralogical Mapping of CRISM Imagery **[#1034]**
We develop a novel method for unsupervised mineralogical mapping of CRISM imagery, which will process multiple images automatically using a single pipeline.

Clark R. N. Swayze G. A. Murchie S. L. Seelos F. P. Seelos K. et al. ***POSTER LOCATION #421***
Mineral and Other Materials Mapping of CRISM Data with Tetracorder 5 **[#2410]**
New mapping of minerals, amorphous materials, organic, and inorganic chemical compounds in Mars CRISM is underway, searching for hundreds of new compounds.

Popa I. C. Carrozzo F. G. DiAchille G. Silvestro S. Esposito F. et al. ***POSTER LOCATION #422***
First Supergene Enrichment Zone Discovered in Shalbatana Valley: Constrains on Martian Early Atmosphere **[#2653]**
We present constrains for the oxidative state of Mars early atmosphere from evidences given by the only known martian supergene enrichment in Shalbatana Valley.

Ackiss S. E. Horgan B. ***POSTER LOCATION #423***
Possible Sources of Sulfates in the Sisyphi Montes Region of Mars **[#2230]**
Here we explore possible sources for sulfate signatures in the Sisyphi Montes region by correlating mineralogic and geomorphologic datasets.

Karunatillake S. Wray J. J. Gasnault O.
McLennan S. M. Rogers A. D. et al. ***POSTER LOCATION #424***
Latitudinal Variation in the Association of H_2O with Sulfur in Martian Soil **[#1175]**
We assess the latitudinal variation in sulfate hydration state of martian regional bulk soil. This reveals the nature and importance of hydrous sulfates in soil.

Pathare A. V. Feldman W. C. Prettyman T. H. Jensen E. Maurice S. ***POSTER LOCATION #425***
Global Mapping of Near-Surface Water-Equivalent Hydrogen **[#2459]**
Our improved mapping of Mars Odyssey Neutron Spectrometer near-surface water-equivalent hydrogen better correlates with recent ice-rich mid-latitude craters.

Kuzmin R. O. Litvak M. L. Mitrofanov I. G. Zabalueva E. V. ***POSTER LOCATION #426***
Analysis of the Seasonal Variations of the Water Equivalent of the Hydrogen Amount in the Subsurface Regolith on Mars Based on the HEND Data Accumulated During Five the Martian Years **[#2007]**
We will present the results of analysis of seasonal variations of the water in the martian surface layer based on HEND multi-year observations.