Wednesday, March 21, 2018 **[W401]**

MINERALOGY OF MARS FROM ORBITAL DATA I: WET OR DRY, HOT OR COLD, HABITABLE OR NOT?

8:30 a.m. Waterway Ballroom 1

Chairs: **John Mustard**
Briony Horgan

8:30 a.m. Carter J. *
A New View of Mars Aqueous Alteration: First Results from the Mars Orbital Catalog of Chemical Alteration Signatures (MOCCAS) **[#1166]**
A new global view of Mars' blanketing aqueous alteration is provided based on the MOCCAS project, revealing several regional trends for secondary minerals.

8:45 a.m. Quantin-Nataf C. * Thollot P. Carter J. Mandon L. Dehouck E.
The Unique and Diverse Record of Noachian Aqueous Activity in Oxia Planum, Mars **[#2562]**
Oxia Planum recorded two distinct Noachian aqueous environments: A wide clay-bearing layered formation and a younger, but still Noachian, fluvio-deltaic system.

9:00 a.m. Mustard J. F. * Head J. W.
A Geologic Record of the First Billion Years of Mars History **[#2604]**
The region where Syrtis Major intersects the Isidis Basin presents a compelling record of the first billion years of Mars' evolution accessible to Mars 2020.

9:15 a.m. Scheller E. L. * Ehlmann B. L.
Composition and Impact Deformation of Noachian Basement West of Isidis **[#1631]**
We mapped the mineralogy and impact deformation features of the Noachian basement unit in the region west of Isidis to understand its geological history.

9:30 a.m. Poulet F. * Martinez A. Carter J. Riu L. Gondet B. et al.
Modal Mineralogy of Phyllosilicate- and Carbonate-Bearing Terrains Near Nili Fossae and Implications on Alteration Degrees **[#1283]**
We investigate the northwest area of the Isidis impact basin, home of Jezero and NE Syrtis, to quantify the bulk surface mineralogy throughout this region.

9:45 a.m. Horgan B. * Anderson R. B.
Possible Lacustrine Carbonates in Jezero Crater, Mars — A Candidate Mars 2020 Landing Site **[#1749]**
Carbonate units in Jezero are spectrally and texturally diverse, and a distinct carbonate unit along the inner rim could be consistent with a shoreline deposit.

10:00 a.m. Brown A. J. * Goudge T. A. Viviano C. E.
Olivine-Carbonate Mineralogy of Jezero Crater **[#1761]**
Using data from CRISM, we have identified a correlation between olivine and carbonate signatures present in Jezero Crater and its surrounding watershed.

10:15 a.m. Chaves L. C. * Horgan B. Lynch K. L. Kimbrough L. Hanley J. et al.
Acidic Environments in Columbus Crater, Mars: Implications for Habitability **[#1744]**
Thirteen images acquired by CRISM from Columbus Crater were processed to identify the geochemistry and understand the aqueous processes on ancient Mars.

10:30 a.m. Bishop J. L. * Wray J. J. Sessa A. M. Danielson J. M. Ehlmann B. L. et al.
Evidence of Salty Residues in Layered Outcrops at Mawrth Vallis and Implications for Evaporative Environments on Early Mars **[#1117]**
Sulfate mineralogy observed in small layered outcrops at Mawrth Vallis suggests evaporative environments existed between formation of the phyllosilicate units.

10:45 a.m. Sessa A. M. * Wray J. J. Bishop J. L.
Discovery of Alunite in Candidate ExoMars Landing Site, Mawrth Vallis: Evidence for Localized Evaporative Environments **[#2983]**
Salty, localized / Mobilized aluminum / Alunite is found.

11:00 a.m. Viviano C. E. * Murchie S. L. Daubar I. J. Morgan M. F. Seelos F. P. et al.
The Composition of Amazonian Materials in Tharsis and Elysium, Mars **[#2428]**
Spectra from relatively dust-free Amazonian surfaces appear comparable in composition to Hesperian volcanics, but distinct from Noachian igneous materials.

11:15 a.m. Rogers A. D. * Warner N. H. Golombek M. P. Head J. W. Cowart J. C.
Areally Extensive Olivine-Enriched Bedrock Exposures on Mars: Many are Clastic Rocks, Not Lavas **[#2388]**
Many olivine-enriched bedrock exposures are friable. Potential origins: Lithified detrital sediments, pyroclastics, or impact-generated materials.

11:30 a.m. Cowart J. C. * Rogers A. D.
Noachian Intercrater Plains Bedrock Units Show Variable Olivine Enrichment **[#1572]**
THEMIS spectra show / Olivine enrichments might / Not be volcanic.