

Tuesday, March 22, 2016

[T202]

SPECIAL SESSION:

CERES UNVEILED: THE NEXT LAYER

8:30 a.m. Waterway Ballroom 4

Chairs: Debra Buczkowski
Ottaviano Ruesch

- 8:30 a.m. McCord T. B. * Combe J.-Ph. Raymond C. A. De Sanctis M. C. Jaumann R. et al.
[Ceres Evolution: What We Have Learned from Dawn So Far](#) [#1607]
A summary of knowledge of Ceres evolution before Dawn, what is learned from Dawn, and how the understanding of evolution is evolving.
- 8:45 a.m. Li J.-Y. * Le Corre L. Reddy V. Nathues A. Hoffmann M. et al.
[Spectrophotometric Modeling and Mapping of Ceres](#) [#2095]
We present the global spectrophotometric properties of Ceres and the maps of its various photometric properties across the surface.
- 9:00 a.m. Pieters C. M. * Ammannito E. Ciarniello M. De Sanctis M. C. Hoffman M. et al.
[Surface Processes and Space Weathering on Ceres](#) [#1383]
Processes active on dwarf planet Ceres are related to those of rocky and icy bodies, except in a unique combination. Observed properties evolve with time, but...
- 9:15 a.m. Ammannito E. * De Sanctis M. C. Ciarniello M. Frigeri A. Combe J.-Ph. et al.
[Distribution of Phyllosilicates on Ceres](#) [#3020]
We present here the distribution of phyllosilicates on Ceres' surface as measured by the IR spectrometer onboard the Dawn spacecraft.
- 9:30 a.m. Palomba E. * Longobardo A. De Sanctis M. C. Cloutis E. Ammannito E. et al.
[Characterization of Carbonates on Ceres](#) [#2166]
The objective of this work is to constrain the carbonate minerals present on the Ceres surface.
- 9:45 a.m. Platz T. * Nathues A. Schaefer M. Schenk P. Kneissl T. et al.
[Impact Cratering on Ceres: The Simple-to-Complex Transition](#) [#2308]
We present how the simple-to-complex transition has been determined for Ceres and make inferences about surface target properties.
- 10:00 a.m. Otto K. A. * Jaumann R. Krohn K. Buczkowski D. L. von der Gathen I. et al.
[Origin and Distribution of Polygonal Craters on \(1\) Ceres](#) [#1493]
We investigate the distribution of polygonal craters on Ceres and discuss possible formation processes with respect to Ceres' geology.
- 10:15 a.m. Buczkowski D. L. * Schenk P. M. Scully J. E. C. Otto K. von der Gathen I. et al.
[Linear Structures on Ceres: Morphology, Orientation, and Possible Formation Mechanisms](#) [#1262]
Linear structures identified on Ceres include grooves, pit crater chains, fractures and troughs. Multiple formation mechanisms are explored.
- 10:30 a.m. Scully J. E. C. * Raymond C. A. Buczkowski D. L. O'Brien D. P. Mitri G. et al.
[Implications for the Geologic Evolution of Ceres, Derived from Global Geologic Mapping of Linear Features](#) [#1618]
We present a global geologic map and relative ages of fractures and ejecta ray systems on Ceres. One set of fractures is one of the oldest features on Ceres.

- 10:45 a.m. Bowling T. J. * Ciesla F. J. Marchi S. Davison T. M. Castillo-Rogez J. C. et al.
[Impact Induced Heating of Occator Crater on Asteroid 1 Ceres](#) [#2268]
Occator, once hot / Liquid water flowed beneath / Alas, no longer.
- 11:00 a.m. Hughson K. H. G. * Russell C. T. Combe J.-Ph. Scully J. E. C. Platz T. et al.
[Shedding Light on Oxo Crater: A Detailed Investigation of the Geology and Morphology of One of Ceres' Youngest Features Using Dawn Spacecraft Data](#) [#2387]
We present a detailed analysis of the geology and morphology of Oxo crater and its immediate surroundings and discuss its place in the evolution of Ceres.
- 11:15 a.m. Combe J.-Ph. * McCord T. B. Tosi F. Raponi A. De Sanctis M. C. et al.
[Detection of H₂O-Rich Materials on Ceres by the Dawn Mission](#) [#1820]
Exposed H₂O ice or H₂O-bearing minerals in crater Oxo on Ceres are revealed by near-infrared reflectance spectra acquired by the Dawn mission.
- 11:30 a.m. Villarreal M. N. * Russell C. T. Prettyman T. H. Yamashita N. Jia Y. D. et al.
[How Can Ceres Generate Energetic Electrons? Confirming the Presence of a Temporary Bow Shock](#) [#1687]
Energetic electrons between 20–100 keV are investigated as evidence for a temporary bow shock at Ceres.