Thursday, March 17, 2005
POSTER SESSION II: LUNAR POTPOURRI
7:00 p.m. Fitness Center

Lowman P. D. Jr.
Origin of the Lunar Highland Crust **[#2215]**
Surface photographs, remote sensing data, and returned sample analyses indicate that the lunar highland crust was formed by eruptions of high aluminum hypersthene basalt.

Gaddis L. R. Skinner J. A. Hare T. M. Tanaka K. Hawke B. R. Spudis P. Bussey D. B. J. Pieters C. Lawrence D. J.
Lunar Geologic Mapping: Preliminary Mapping of Copernicus Quad **[#2021]**
We describe prelimary 1:2.5 M scale geologic map results of the Copernicus quad as part of a new pilot program for systematic, global lunar geologic mapping.

Matsumoto N. Asada N. Demura H.
Automatic Crater Recognition on Digital Terrain Model **[#1995]**
This goal is a software development to detect craters automatically with following parameters; diameter, coordinates, depth, and direction of incidence. Verifications with ideal ellipsoids showed that this tool detected them exactly in diverse cases.

Archinal B. A. Rosiek M. R. Redding B. L.
Unified Lunar Control Network 2005 and Topographic Model **[#2106]**
We describe our effort to merge the existing Unified Lunar Control Network and the Clementine Lunar Control Network to form a new improved global lunar network, including a true 3-D lunar topographic model, the Unified Lunar Control Network 2005.

Anderson R. C. Buehler M. Seshardi S. Kuhlman G. Schaap M.
Dielectric Constant Measurements for Characterizing Lunar Soils **[#1969]**
The return to the Moon has ignited the need to characterize the lunar regoliths using fast, reliable *in situ* methods. Determining the dielectric constant of lunar materials can be very important in characterizing surface deposits, especially those that contain titanium, iron, and water.

Ebel D. S. Fogel R. A. Rivers M. L.
Tomographic Location of Potential Melt-bearing Phenocrysts in Lunar Glass Spherules **[#1505]**
Apollo 17 orange glass spherules contain olivine phenocrysts with melt inclusions from depth. Tomography (<2 μm/pxl) of >200 spherules located 1 phenocryst. We will try to find melt inclusions and obtain original magma volatiles and compositions.

Bérczi Sz. Cech V. Józsa S. Szakmány Gy. Fabriczy A. Földi T. Varga T.
How We Used NASA Lunar Set in Planetary Material Science Analog Studies on Lunar Basalts and Breccias with Industrial Materials of Steels and Ceramics **[#1282]**
Two main rock types of NASA Lunar Set were used in analog studies of processes and textures with selected industrial material samples: for breccias and basalts on the lunar side, ceramics and steels were analogs on the industrial side.

Kim K. J. Reedy R. C. Gasnault O.
Calculations of the Fluxes of 10–250 keV Lunar Leakage Gamma Rays **[#1900]**
The fluxes of 10–250 keV gamma rays from the Moon were calculated for a range of compositions and shown to be useful for some lunar studies. The shapes of the continuum <100 keV and its magnitude >100 keV vary systematically with composition.

Honda C. Fujimura A.
Formation Process of Lunar Sinuous Rilles by Thermal Erosion of Basaltic Lava Flow **[#1562]**
We examined the thermal erosion mechanism of basaltic lava flow for explaining the formation of sinuous rilles on the Moon. Appropriate conditions of candidate basaltic lavas enable us to interpret the formation condition of lunar sinuous rilles.

Skinner J. A. Jr. Gaddis L. R. Keszthelyi L. P. Hare T. M. Howington-Kraus E. Rosiek M.
Alphonsus-type Dark-Halo Craters — Morphometry and Volume Reassessments and Implications for Eruptive Style **[#2344]**
We use digital reproductions and analysis of past topographic datasets to update geomorphic and volumetric measurements for the Alpohonsus-type dark-halo craters.