Thursday, March 21, 2013 [R709]
POSTER SESSION: REGOLITH AND DUST PROCESSES ON AIRLESS BODIES
6:00 p.m. Town Center Exhibit Area

MacLennan E. M. Emery J. P. Trilling D. E. ***POSTER LOCATION #95***
Thermal Inertia of Asteroids from Multi-Epoch Observations by WISE **[#2757]**
We employ a thermophysical model, analyzing data taken by the Wide-Field Infrared Survey Telescope at multiple epochs, to constrain thermal inertia for objects.

Crane K. T. Minton D. A. Emery J. P. ***POSTER LOCATION #96***
Thermal Inertia of a Metallic Regolith: A Simulant Sample Experiment **[#1018]**
Calculated values of thermal inertia of metallic regolith simulant are reasonably close to the thermal inertia measured for M-type asteroid 216 Kleopatra.

Mellon M. T. McKay C. P. ***POSTER LOCATION #97***
Thermal Conductivity of Planetary Regoliths: The Effects of Pebbles and Cobbles in a Fine Grained Matrix **[#2864]**
We examine of the effects of embedded pebble and cobble heterogeneities on the thermal conductivity of an otherwise fine-grained planetary regolith.

Starukhina L. V. ***POSTER LOCATION #98***
On the Thermodynamic Constraints on Dust Release: Implication to the Structure and Size of Dust Particles in Cometary Comas **[#2252]**
Dust detachment from comet nuclei is favored at curvature radii in the contacts <0.1 μm, for small grains and their aggregates cemented by ice bridges of r ~10 nm.

Piquette M. Horányi M. Lihkanski A. ***POSTER LOCATION #99***
Effects of Surface Topography on Dust Dynamics in the Lunar Plasma Environment **[#3076]**
The lunar surface develops a complex plasma environment in which charged dust is allowed to interact dynamically. Our studies model this interaction.

Tankosic D. Abbas M. M. ***POSTER LOCATION #100***
Study of the Effects of the Electric Field on Charging Measurements on Individual Micron-Size Dust Grains by Secondary Electron Emissions **[#2807]**
In this paper we give a more elaborate discussion about the possible effects of the AC field in the EDB on the measurements of dust charging by electron impact.

Senshu H. Kimura H. Yamamoto T. Wada K. Kobayashi M. et al. ***POSTER LOCATION #101***
Dust Levitation due to Instantaneous Charge-Up **[#2205]**
In this study we carry out numerical simulation to trace the motion of photoelectrically charged-up dust grains on and above asteroids and the Moon.

Durda D. D. Roark S. E. Scheeres D. J. Sanchez P. Devaud G. et al. ***POSTER LOCATION #102***
Experimental Approach and Apparatus for Laboratory Investigation of Asteroid Regolith Properties **[#2287]**
We describe a novel experimental approach and the laboratory apparatus for studies of the properties of asteroid regolith analogs.

Munsat T. Collette A. Drake K. Grün E. Horányi M. et al. ***POSTER LOCATION #103***
Recent Science Results from the CCLDAS Dust Accelerator **[#2585]**
We present a description of a new 3-MV linear micrometeoroid accelerator and an overview of our recent science results from this facility.

Rickman D. L. ***POSTER LOCATION #104***
Preliminary Measurement of Lunar Particle Shapes **[#2910]**
A method for obtaining statistical robust measures of particle shape from thin sections of the lunar regolith is demonstrated.

Rout S. S. Dohmen R. Klemme S. Baither D. Morlok A. et al. ***POSTER LOCATION #105***
Growth of Nano Iron Inclusions in Films Produced by Pulsed Laser Irradiation of Olivine: Simulations of Space Weathering on Mercury **[#2721]**
Thin amorphous silicate films, prepared by pulsed laser irradiation of San Carlos olivine, were annelaed at high temperature to see the change using TEM.

Markley M. M. Gillis-Davis J. J. Bradley J. P. ***POSTER LOCATION #106***
Comparison of Laser Space Weathering Flux on the Spectral Changes of Olivine **[#2770]**
Manipulating pulsed laser energy and flux to simulate space weathering and the spectral changes involved on a sample.

Cuda J. Filip J. Tucek J. Kohout T. Skala R. et al. ***POSTER LOCATION #107***
Space Weathering Simulations Through Laboratory Production of Iron Nanoparticles on Mineral Grains **[#2524]**
Presence of artificially produced 60-nm metallic nanoparticles on olivine powder grains caused darkening and shallowing of absorption bands, but not reddening.

Noble S. K. Keller L. P. Christoffersen R. Rahman Z. ***POSTER LOCATION #108***
Lateral Variations in Lunar Weathering Patina on Centimeter to Nanometer Scales **[#1298]**
Two distinct types of patina are identified and described from SEM/TEM observations of a TS of 76015. Both types develop rapidly on exposed rock surfaces.

Liu Y. Guan Y. Chen Y. Zhang Y. Eiler J. M. et al. ***POSTER LOCATION #109***
Hydroxyl in Lunar Regolith: Dependence on Soil Composition and Maturity **[#2203]**
Distribution of water in lunar regolith as a function of soil composition and maturity.

Hurley D. M. Farrell W. M. ***POSTER LOCATION #110***
Solar Wind Fluence to the Lunar Surface **[#2015]**
We investigate the contribution of solar wind to the inventory of OH on the surface of the Moon as a function of time and selenographic position.