

**Thursday, March 15, 2007**  
**POSTER SESSION II: MERCURY**  
**6:30 p.m. Fitness Center**

Dombard A. J. Hauck S. A. II

*Despinning Plus Global Contraction and the Orientation of Lobate Scarps on Mercury* [#2026]

We resurrect the idea that a N-S preference to the lobate scarps are the product of stresses due to an early phase of despinning plus global contraction, and use this concept as an additional constraint on our thermal models of Mercury.

King S. D.

*A Possible Connection Between Convection in Mercury's Mantle and the Formation of Lobate Scarps* [#1358]

I present calculations of convection in a 3D spherical-shell with temperature-dependent rheology. The planform is linear upwellings in the low latitudes with a hexagonal pattern near the poles. These are compared with the pattern of lobate scarps.

Riner M. A. Bina C. R. Robinson M. S.

*Compressible Mercury — Insights into Its Composition and Interior Structure* [#2361]

We have applied new results from high-pressure experiments to model Mercury's interior and found a mean decompressed density of 5.1 g/cc, significantly lower than the canonical value of 5.3 g/cc. We present implications for the composition and interior structure of Mercury.

Moroz L. V. Maturilli A. Helbert J. Sasaki S. Bischoff A. Jessberger E. K.

*Mercury Analogue Materials: Spectral Reflectance, Its Comparison with TIR Spectral Emission, and a Space Weathering Simulation Experiment* [#1741]

We present reflectance spectra of Mercury analog materials, compare the TIR reflectance spectra of the samples to their emission spectra to evaluate deviations from Kirchhoff's law, and report on a space weathering simulation experiment on feldspar.

Donaldson Hanna K. L. Sprague A. L. Kozlowski R. W. H. Boccafolo K. Warell J.

*Mercury and the Moon: Initial Findings from Mid-Infrared Spectroscopic Measurements of the Surface* [#2291]

Mid-infrared spectroscopic measurements from 8.2–12.7  $\mu\text{m}$  of Mercury and the Moon obtained with MIRSI (Mid-Infrared Spectrometer and Imager) at the NASA Infrared Telescope Facility (IRTF) are presented.

Blewett D. T. Burbine T. H.

*Angrites as Samples of Mercury?: A Spectral Perspective* [#1203]

We perform a comparison between laboratory spectra of angrites and telescopic spectra of Mercury, and discuss geologic considerations that bear on the question of a mercurian origin for angrites.

Andre S. L. Watters T. R.

*Mercury Stereo Topography: Construction of Regional Topographic Maps Derived from Mariner 10 Images* [#2155]

We present the current status of the Mariner 10 stereo topography project.

Benkhoff J.

*MPO — The BepiColombo Mercury Planetary Orbiter* [#2169]

BepiColombo is an interdisciplinary mission to explore the planet Mercury through a partnership between ESA and Japan's Aerospace Exploration Agency (JAXA). The launch is foreseen for August 2013 with arrival in August 2019.