

Thursday, March 13, 2008

POSTER SESSION II: VENUS MAPPING, MODELING, AND DATA ANALYSIS

6:30 p.m. Fitness Center

Basilevsky A. T. Shalygin E. V. Titov D. V. Markiewicz W. J. Scholten F. Kreslavsky M. A.  
*Geologic Analysis of the Surface Thermal Emission Images Taken by the Venus Monitoring Camera, Venus Express: Initial Results* [#1526]

We report on initial analysis of Venus Monitoring Camera, Venus Express, images showing 1  $\mu\text{m}$  emission of the Venus night-side surface searching for ongoing volcanism and surface materials mineralogically different from basalts.

Ivanov M. A.

*Global Geological Map of Venus: Preliminary Results* [#1017]

Results of near-global geological mapping of Venus are presented.

Senske D. A.

*Geology of the Juno Chasma Quadrangle, Venus: Assessment of the Relation Between Rifting and Volcanism* [#1106]

To understand spatial and temporal relations between tectonic and volcanic processes, the Juno Chasma region is mapped. Geologic units are used to establish broad-scale stratigraphic relations and the timing between uplift, stretching, and volcanism.

Crown D. A. Stofan E. R. Bleamaster L. F. III

*Geologic Mapping of the Guinevere Planitia Quadrangle (V-30) of Venus* [#1725]

Geologic mapping of the Guinevere Planitia Quadrangle (V-30) of Venus ( $0^{\circ}$ – $25^{\circ}$ N,  $300^{\circ}$ – $330^{\circ}$ ) allows characterization of the geologic, tectonic, and volcanic histories of this region of venusian plains.

Hurwitz D. M. Head J. W. III

*Geologic Mapping of the North Polar Region of Venus (VI-Snegurochka Planitia): Implications for the Evolution of Volcanic Activity* [#1388]

We present a geologic map and descriptions of features in the north polar region of Venus and discuss implications for a comparison between the geologic histories of Venus and Archean Earth.

White O. L. Stofan E. R. Guest J. E.

*A New Survey of Intermediate Volcanoes in the BAT Region of Venus* [#1248]

A new catalogue of all intermediate volcano types (including calderas) is being compiled for Venus in order to investigate factors influencing edifice morphology. This study presents the initial results of the survey, focusing on the BAT region.

Shankar B. Hansen V. L.

*Preliminary Global Survey of Circular Lows, A Subset of Venusian Coronae* [#1813]

We address the mode of formation of coronae on circular lows — coronae with amphitheatre-sized depressions. A major hypothesis is coronae are surface expressions of endogenic rising diapirs but others suggest coronae are exogenic impact craters.

Hansen V. L. Tharalson E. R. McDaniel K. M. Cole K. L. Goodge B. H.

*The Coronae Conundrum: Results from Detailed Geologic Mapping of Agnesi Quadrangle, (V-45; 25–50S/30–60E), Venus* [#2325]

Detailed geologic mapping of nine coronae and two mons in V45 indicates that these features represent four distinct geomorphic classes, recording five different processes. We suggest that the term coronae should be redefined, or abandoned.

Oshigami S. Namiki N. Komatsu G.

*Depth Profiles of Venusian Channels and Valleys: A Comparison Among Canali, Sinuous Rilles, and Valley Networks* [#1553]

We compared representative types of venusian channels and valleys, which are canali, sinuous rilles, and labyrinthic valley networks in order to clarify their differences and obtain some implications for Venusian geological history.

Orth C. P. Solomatov V. S. Reese C. C. Head J. W. III

*A Simple Cooling Model for the Cessation and Distribution of Volcanism on Venus* [#1360]

A simple spherical cooling model is used to calculate the decay and the distribution of volcanic activity during the observable history of Venus. To first order, the predictions of this model seem to satisfy reasonably well various geophysical and geological constraints.