

Tuesday, November 11, 2008
WATER, CLOUDS, AND DUST: WATER VAPOR (continued)
2:00 – 2:48 p.m.

Chair: M. Wolff

Fedorova A. * Korablev O. Bertaux J.-L. Rodin A. Montmessin F. Reberac A.

[Vertical Distributions of Water Vapor and Aerosol in the Martian Atmosphere by SPICAM-IR Spectrometer on Mars-Express](#) [#9087]

We report results of solar occultation study of the martian atmosphere performed by SPICAM IR AOTF spectrometer onboard the Mars-Express mission.

Hollingsworth J. L. * Kahre M. A. Haberle R. M.

[Mars' Southern Hemisphere: Influences of the Great Impact Basins on Extratropical Weather and the Water Cycle](#) [#9117]

Large-scale extratropical weather disturbances in Mars' southern hemisphere are influenced by the great impact basins which have implications for the poleward transports of heat, momentum and atmospheric tracers (water and dust).

Tyler D. * Barnes J. R.

[Mesoscale Model Simulation of the Sublimation and Transport of Water from the North Polar Residual Ice Cap](#) [#9083]

The OSU MMM5 is now examining the sublimation of NPRC water ice and its transport by the atmosphere. Proof of concept runs are complete; and, these, already, are instructive. Ongoing model development will lead to many more results being presented.

Renno N. O. * Clark B. C. Drube L. Fisher D. Goetz W. Hecht M. Keller H. U. Kounaves S. Lemmon M. Madsen M. B. Marshall J. Mehta M. Mellon M. Smith M. Smith P. H. Stoker C. Tamppari L. Wood S. Young S. M. Zent Z.

[Physical and Thermodynamical Evidence of Liquid Water on Mars](#) [#9127]

We show evidence that liquid saline-water currently exists on Mars. Moreover, we show that the thermodynamics of freezing/thaw cycles leads to the formation of saline solutions with freezing temperatures much higher than currently found on most of Mars.