Characteristic spectral aspects of a Martian duststorm

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Abstract

Computed spectra of a Martian atmosphere transmission as observed by the ISO SWS in the case of a Martian duststorm will be shown for several levels of dust altitude. Dust composition and spectral response will also be discussed. As the historical Martian storm season begins only at the middle of October 1997, and as the 1997 Mars ISO Mars opportunity has ended at the end of August without any global duststorm occurence, no actual ISO data will be presented. The origin and nature of the dust storms will be discussed as well as their global consequences on the Mars atmospheric system on the basis of a mathematical model.