Geophysical Research Abstracts
Vol. 21, EGU2019-13656-2, 2019
EGU General Assembly 2019

The behaviour of Martian Aerosols in the 3 μm spectral range, during and outside the 2018 global dust event based on the TGO/ACS-MIR channel.

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The Atmospheric Chemistry Suite (ACS) instrument from the ExoMars Trace Gas Orbiter (TGO) ESA-Roscosmos mission has started science operations in March 2018. The middle-infrared (MIR) channel is an infrared spectrometer dedicated to Solar Occultation, covering the 2,3 – 4,2 μm spectral range. It allows us to monitor the aerosols wavelength behaviour, in particular before and during the 2018 global dust event. In addition, the high spatial and temporal sampling provided by TGO allows us to monitor the water ice clouds distribution as a function of latitude and local time.

Here, we focus on the changes with altitude observed for the 3 μm absorption band of water ice, using a dedicated configuration of the instrument (position #12 of the secondary grating position of the ACS-MIR channel).