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# Sulfur dioxide in the Venus atmosphere measured by SOIR on board Venus Express

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$SO_2 is a key constituent of the Venus mesosphere, playing an important role in the atmosphere chemistry, as it is a product of th$ observations are important in the frame of constraining Global Computation Models (GCM), which simulate the circulation and the chemistry of the Venus atmosphere. The SOIR instrument flying on board the Venus Express spacecraft records infrared spectra of the Venus atmosphere, using the solar occultation technique. Amongst the species absorbing in the SOIR wavelength range, sulfur dioxide presents a weak band, from which regular observations are obtained in the 60 to 100 km altitude region. We derive number density and volume mixing ratio vertical profiles. Total density and temperature profiles are obtained from the carbon dioxide number density profiles. This study presents the latitude and temporal variations observed between 2006 and 2013. The results are compared to literature data and discussed. Future work will consist of including and comparing the data to Venus GCM.