

Water isotope retrievals from MIPAS/Envisat

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MIPAS is a mid-infrared limb emission sounder on Envisat which provides more than 1000 radiance profiles per day with pole-to-pole coverage during day and night. Global distributions revealing the seasonal variations of water vapor as well as its isotopes HDO and H₂¹⁸O have been retrieved from the MIPAS spectral data. We discuss the properties of the currently available data version with their link to atmospheric applications, and present intercomparisons to HDO data from the ACE-FTS and ODIN/SMR instruments. Approaches for further improvements of the isotopic data will be discussed. The impact of spectroscopic reference data and needs for improvement will also be discussed.