



Water vapor in the upper troposphere and lower stratosphere from SCIAMACHY limb measurements, 2002 - 2011

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The SCanning Imaging Absorption spectroMeter for Atmospheric CHartographY (SCIAMACHY) on Envisat started to operate in 2002 and the measurements are ongoing. SCIAMACHY measures the scattered sunlight using different observation geometries. The limb viewing geometry allows to retrieve water vapor at about 12 to 23 km altitude from the near infrared spectral range (1353-1410 nm). These data cover the upper troposphere and lower stratosphere (UTLS) a region of special interest for a variety of dynamical and chemical processes. Here we present a validation of the latest data version of water vapor from SCIAMACHY measurements by comparisons with other satellite data and frost point hygrometer data. The time series from 2002 to 2011 are presented and their variability during the last decade is investigated.