



Validation of the SCIAMACHY limb water vapor retrieval

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The upper troposphere and lower stratosphere (UTLS) is a region of special interest for a variety of dynamical and chemical processes.

Water vapor in the UTLS plays an important role for the radiative budget of the atmosphere, therefore consistent long term measurements are important.

Measurements of scattered sunlight from the SCanning Imaging Absorption spectroMeter for Atmospheric CHar-tograpY (SCIAMACHY) in the limb viewing geometry allow to retrieve water vapor in the UTLS, at about 12 to 23 km altitude.

Onboard Envisat, SCIAMACHY measurements are available for nearly one decade, between August 2002 and April 2012.

Here, we present a validation of the latest data version of water vapor from SCIAMACHY measurements by comparisons with occultation data from SCIAMACHY, other satellite data and frost point hygrometer data. The time series from 2002 to 2012 is presented and their variability during the last decade is investigated