



## **Linear changes/trends of stratospheric BRO as seen by SCIAMACHY limb for the decade 2002-12**

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Stratospheric bromine is of high relevance to ozone chemistry. As a consequence of measures undertaken, the stratospheric bromine load is expected to decline slowly. Indeed, evidence for the onset of a turnaround of stratospheric bromine in the late 1990s has been reported in WMO(2010) (and references therein).

Bromine monoxide (BRO) is one radical species which is actively involved into catalytic ozone depletion. Still, vertically resolved BRO measurements are rather sparse. The satellite instrument SCIAMACHY/ENVISAT (2002-12) has gathered BRO data for the lower to middle stratosphere (~15-30 km) at global coverage. In its limb viewing geometry, its vertical resolution is typically of around 3-4 km. Related BRO time series cover the period 08/2002-04/2012, i.e. practically one decade. Underlying longterm changes of BRO are statistically described by linear changes/trends.

In our presentation, we show BRO time series and trends from SCIAMACHY limb as a function of latitude and altitude. Negative BRO trends are seen by SCIAMACHY at midlatitudes as well as in the tropics. Some trend comparison is performed between SCIAMACHY and groundbased measurements from the NDACC station of Harestua (60.2°N).