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SCIAMACHY measurements of stratospheric BrO and comparison with model calculations

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SCIAMACHY on board ENVISAT is providing for the first time global measurements of stratospheric BrO. Measurements of stratospheric bromine compounds have been sparse so far, despite their important role in destruction of ozone. The SCIAMACHY BrO measurements now provide an unprecedented opportunity to further test our current understanding of the stratospheric bromine chemistry. Here we present a first climatology of stratospheric BrO from SCIAMACHY measurements. The measurements are compared with calculations from a photochemical model, constrained by simultaneous NO2 measurements from SCIAMACHY and estimated inorganic bromine (Bry), derived from MIPAS/ENVISAT CFC-11 measurements.