

QOS2016-325, 2016

Quadrennial Ozone Symposium of the International Ozone Commission

© Author(s) 2016. CC Attribution 3.0 License.

Recent observations of stratospheric O₃, NO₂, BrO, OCIO and aerosol retrieved from GOME, SCIAMACHY and GOME-2

J. P. Burrows, M. Weber, A. Richter, A. Rozanov, S. Boetel, and K. Weigel

University of Bremen, Institute of Environmental Physics and Remote Sensing IUP/IFE, Bremen, Germany

(burrows@iup.physik.uni-bremen.de)

The instruments GOME (1995-2011 on ESA ERS-2) SCIAMACHY (2002-2012) and GOME-2 (A 2006-present EUMETSAT Metop A and 20012 to present on Metop B) instruments make measurements of the upwelling radiation at the top of the atmosphere. GOME and GOME-2 make nadir measurements whereas SCIAMACHY makes alternate limb and nadir measurements. Appropriate inversion of the nadir measurements leads to total and tropospheric column amounts of the gases O₃, NO₂, BrO and OCIO. In addition vertical profile data is retrieved for O₃ from nadir in the ultraviolet spectral region. SCIAMACHY limb observations provide in addition to vertical profiles of the above gases, vertical profiles of H₂O and aerosol. This presentation will provide an update of the results obtained by the University of Bremen research team for the above trace gases and aerosol.