Tropospheric Ozone Columns During Biomass Burning Events as Seen from SCIAMACHY Using Limb-Nadir-Matching

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SCIAMACHY (Scanning Imaging Absorption Spectrometer for Atmospheric ChartographY) launched in March 2002 measures sunlight, transmitted, reflected and scattered by the earth atmosphere or surface (240 nm - 2380 nm). SCIAMACHY measurements yield the amounts and distribution of O$_3$, BrO, OCIO, CIO, SO$_2$, H$_2$CO, NO$_2$, CO, CO$_2$, CH$_4$, H$_2$O, N$_2$O, p, T, aerosol, radiation, cloud cover and cloud top height in limb as well as nadir mode. With it’s collocated limb and nadir measurements limb-nadir-matching can be used to determine tropospheric ozone columns from SCIAMACHY limb and nadir measurements. Using this method a number of case studies of recent biomass burning events will be shown.