



SCIAMACHY 2003-2007 Carbon Monoxide validation using ground-based FTS measurements

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We present a detailed validation of SCIAMACHY carbon monoxide (CO) total column measurements with FTS measurements from 19 stations for the years 2003 to 2007. The effect of instrument-noise errors, collocations and clouds are quantified using model simulated CO profiles. When taking these effects into account, spatial as well as temporal (seasonal) variations of SCIAMACHY and FTS CO total column measurement agree well and differences between SCIAMACHY and FTS measurements can be explained in terms of SCIAMACHY measurement errors as well as FTS station locations and altitudes. The validation of SCIAMACHY with FTS measurements highlights the shortcomings of the current FTS network.