

Interactive comment on “Intercomparison of slant column measurements of NO₂ and O₄ by MAX-DOAS and zenith-sky UV and visible spectrometers” by H. K. Roscoe et al.

Anonymous Referee #2

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General Comments: The paper addresses relevant scientific questions well within the scope of AMT. With a growing number of MAX-DOAS instruments deployed, intercomparison exercises are a crucial element to assess uncertainties of this specific technique, particularly in light of MAX-DOAS measurements being increasingly used for satellite validation. The paper clearly presents the issues that arise specifically from MAX-DOAS compared to traditional zenith sky measurements. Methods used are well described and can be easily followed. This article is a valuable contribution to the MAX-DOAS community.

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Specific Comments: Table 2 shows the “uniform set of cross sections and other parameters “ that were used for spectral analysis. Why is the polynomial degree for the analysis in the visible wavelength range not uniform? Has the effect of using a different polynomial degree been investigated? Also, has a pre-logarithmic offset been included in some analyses and could that have lead to differences?

Fig. 15 might not be necessary, as this is the method that is not being used to analyze data.

p.3387, line 9, perhaps “cloud and aerosol effects” instead of only “cloud effects”

Technical corrections: Table 1: Washington, fiber or not: include “no”

Interactive comment on Atmos. Meas. Tech. Discuss., 3, 3383, 2010.

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