

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 #3

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This is an excellent paper, well-written and clearly argued. There might be one or two superfluous diagrams but I recommend publication almost as is – very minor comments noted below.

p. 3392, l. 6. The justification applies to ozone as well – why did you use 223 K cross-sections for ozone?

p.3392, l. 25. So were they able to correct for the elevation errors in previous data or did this mean you had to discard the early data measurements from some groups? On the next page, l. 25, you say that data from the whole campaign was used. What is the

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impact of elevation angle errors on the statistics?

p. 3393, l.27 ‘non-zenith’ is superfluous here and makes the sentence confusing.

p. 3397 last line. Stray light is always a problem, it just depends how much. This throwaway sentence needs to be argued more carefully. Are there references that could be used here?

p.3398. Why did Heidelberg not choose another reference spectrum? I can see there is an argument for accepting the data as is, but that point needs to be made explicitly otherwise it seems that the Heidelberg group couldn’t be bothered re-analysing their data.

Figs 6 etc captions, point out that colours relate to elevation angles (not zenith angles)

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

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