

Interactive comment on “Uncertainty budgets of major ozone absorption cross-sections used in UV remote sensing applications” by Mark Weber et al.

Anonymous Referee #1

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The submitted article presents a critical review of three published datasets of ozone absorption cross-sections in the Huggins band, including data previously published by the same authors, with a focus on their uncertainty. In that regard it addresses an issue which has often been underestimated. It should bring valuable outputs for the community of scientists involved in ozone monitoring with remote sensing instruments, in providing a sound base to select the most appropriate dataset to finally improve the confidence in measurements. To calculate uncertainties associated with cross-sections at any temperature, the authors have chosen to use Monte-Carlo simulations. This tool is recommended by guidelines on uncertainty calculation in such complex situations, and could be more widely used by the community. The article is generally well written and organised. The conclusions of the study appears to be consistent. The main criticism would be a lack of clarity in the assumptions made

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by the authors when using datasets published by other teams, and in applying the Monte-Carlo simulations, as detailed in the attached review file. This only motivates a request for revision and a second review.

Please also note the supplement to this comment:

<http://www.atmos-meas-tech-discuss.net/amt-2016-34/amt-2016-34-RC1-supplement.pdf>

Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2016-34, 2016.

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