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Atmospheric Measurement Techniques Discussions

Interactive comment on "A new photometric ozone reference in the Huggins bands: the absolute ozone absorption cross section at the 325 nm HeCd laser wavelength" *by* Christof Janssen et al.

Anonymous Referee #1

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General comments: As authors point out, there is a demand for accurate ozone absorption cross-section values, and thorough measurements are a prerequisite for reliable reference data. Measurements of the absolute values are particularly challenging for such an unstable gas as ozone, and authors provide strong evidence that their experimental approach allows to achieve very low uncertainty of the resulting data.

The manuscript is well structured and highlights all milestones of the performed research.

Authors provide analysis of experimental data and line up a very detailed uncertainty budget summary.

Measured ozone absorption cross-section value at the 325nm HeCd laser wavelength can be used not only as a reference in the UV, but also serve for further investigation of discrepancy between the UV and IR remote sensing results.

The mentioned 2% difference with respect to existing broadband ozone absorption cross-section datasets can certainly become a motivating factor for further cross-section measurements with unprecedented uncertainties.

Specific comments: none

Technical errors: none

Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2017-311, 2017.