

Interactive comment on “Updated ozone absorption cross section will reduce air quality compliance” by E. D. Sofen et al.

Anonymous Referee #2

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Summary: This relatively short paper discusses the significance of a recent reevaluation of the ozone absorption cross section for existing ozone data collected within North American and European networks. The authors correct existing data based on the revised cross section and point out locations that exceed the relevant air quality standard with this correction in place. Overall, this paper is well written and the topic is suitable for publication in this journal. However, I recommend that the authors address the following comments before the paper is accepted for final publication in ACP.

1) Please comment on similarities/differences between Viillion et al. (2015) and Mauersberger et al. (1987), another ozone cross section reference that is commonly used.

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Mauersberger, K., D. Hanson, J. Barnes, and J. Morton (1987), Ozone vapor pressure and absorption cross-section measurements: Introduction of an ozone standard, *J. Geophys. Res.*, 92(D7), 8480–8482, doi:10.1029/JD092iD07p08480.

2) Please comment on whether other ozone instruments, including those built by Teledyne and 2B Technologies, use the Mauersberger et al. (1987) or Hearn (1961) values. These new analyzers are replacing the Thermo 49i's in the US. It would be most helpful to include a table that included all commercial ozone analyzers and the cross section employed.

3) Please comment on the uncertainty of the Hearn (1961) measurement, and whether this is greater than the difference between the Viillion and Mauersberger values.

Interactive comment on Atmos. Chem. Phys. Discuss., 15, 19537, 2015.

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