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Atmospheric Measurement Techniques Discussions

Interactive comment on "Measurement of ozone production sensor" *by* M. Cazorla and W. H. Brune

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The authors thank anonymous reviewer#1 for his feedback and spelling corrections.

Below we address a concern expressed on the reviewer's comment:

". . . The main limitation with the instrument at present appears to be its need to operate at relative humidities of <50% which is quite a restriction for many ambient atmospheres. It is hoped that future refinements will be able to overcome this."

The relative humidity condition of 50% is for the inside of the chambers and not for the ambient air. In daytime, the temperature inside the chambers is higher than ambient by 5-10 deg C, which makes the relative humidity inside the chambers drop about 25% with respect to ambient. Hence, the MOPS can measure ozone production without

introducing an artifact in the measurements at ambient relative humidities as much as 75% as long as the relative humidity inside the chambers stays below 50%. This restriction is not as much of a constraint as it would appear. We were able to make measurements for most days and in fact all ozone alert days in Houston, Texas, which is a quite hot and humid place. However, we are developing the next version of MOPS that will not have this problem with relative humidity.

Interactive comment on Atmos. Meas. Tech. Discuss., 2, 3339, 2009.