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

M. Cazorla and W. H. Brune
mxc528@psu.edu

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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.