

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

Anonymous Referee #1

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This paper presents a description of an instrument designed and constructed by the authors to measure the rate of ozone production in ambient air in real time. The paper also provides a description and discussion of a number of experimental tests to quantify performance characteristics and uncertainties. There is a short section containing illustrative data obtained with the instrument over a 4-day period on the campus of Pennsylvania State University.

Knowledge of the ozone chemical production rate in ambient air is important for all the reasons the authors cite in their introduction, and this work makes an important contribution to delivery of a reliable and low-cost real-time instrument for such measurements. 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. That

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aside, the science of this work is high quality, and the manuscript well structured and concisely and fluently written. The material is eminently suitable for AMT and I support the paper's publication in AMT with minor typographical revision.

P3341, line 18: The sentence containing the phrase “where the k's” is not grammatical, and needs to be re-expressed to make unambiguous to what singular k or plural k is being referred.

P3346, line 10: “that” should read “than”.

P3347, line 3: delete extra “the”.

P3348, lines 24-25: sentence grammar need sorting.

P3350, line 14; delete extraneous “it”.

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