Atmos. Meas. Tech. Discuss., 4, C767–C768, 2011
www.atmos-meas-tech-discuss.net/4/C767/2011/

Atmospheric Measurement Techniques Discussions

Interactive comment on "Detection of HO_2 by laser-induced fluorescence: calibration and interferences from RO_2 radicals" *by* H. Fuchs et al.

H. Fuchs et al.

h.fuchs@fz-juelich.de

Received and published: 1 June 2011

The results of the Leeds group are very interesting and support our conclusions. We thank Lisa Whalley for her contribution to the discussion. The results from Leeds support the observations and conclusions that we conducted from our experiments using the LIF instrument from the Forschungszentrum Jülich. (1) An interference from some RO_2 radical species on the HO_2 channel is linked to a high conversion efficiency of HO_2 radicals to OH. (2) The interference most likely affects other instruments using the same reaction scheme at conditions with high OH yields. (3) More experiments are needed, in order to quantify the interference from different RO_2 radicals, especially from larger alkanes. (4) It is possible to run the LIF instrument at conditions that effectively minimize the interference.

As mentioned in our response to the comments of reviewer 1 we will include a statement about the findings reported by L. Whalley on page 1282, line 7.

Interactive comment on Atmos. Meas. Tech. Discuss., 4, 1255, 2011.