

We thank the reviewer for comments.

However, one addition to the manuscript that is not clear relates to the correction of the HO₂ measurements using the measured OH concentration from the OH detection axis on page 4, line 7. The authors state that “The contribution of OH is subtracted using the measurement in the OH channel and OH sensitivity in the HO₂ channel.” This is unnecessarily confusing as it seems to imply that the OH sensitivity in the HO₂ channel is used to determine OH concentrations in the OH channel. I believe what the authors are stating is that the contribution of OH to the HO₂ measurements in the HO₂ channel are subtracted using the measurements from the OH channel after accounting for the different sensitivities in the two channels, similar to the correction of RO_x measurements to obtain RO₂ concentrations (page 4, line 23).

Answer: We revised the sentence on Page 4 Line 7 to be “To obtain the concentration of HO₂, the contribution of OH to the signal in the HO₂ cell is subtracted using the measurements of the OH cell after accounting for the different sensitivities in the two cells.”

Related to this, it would be useful to specify the HO₂ conversion efficiency using the two different NO flows (page 4), and whether the stated uncertainty in the HO₂ measurements relates to both NO flow measurements.

Answer: We added sentence to specify the HO₂ measurement in Page 4 Line 14 “This yields a nominal mixing ratio of 2.5 ppmv and 10 ppmv of NO in a sample flow of 1 SLM and an N₂-sheath flow of 1 SLM resulting in the HO₂ conversion efficiencies being 4% and 18%, respectively. No significant difference was found for the two HO₂ data sets showing that the HO₂ measurements were interference-free. Since the data interpretation in this study is in 5 min time resolution, both HO₂ measurements are averaged for 5 min time intervals. The accuracy and precision refer to the 5 min averaged data set (Table 1).”