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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Tropospheric OH and Cl levels deduced from non-methane hydrocarbon measurements in a marine site" *by* C. Arsene et al.

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This well-written manuscript describes the results of a well-conducted reserch work into the determination of OH and Cl levels in marine troposphere from non-methane hydrocarbon measurements. The field data are coupled with atmospheric chemistry modelling to have a further check on the radical levels as derived from experimental data. I have the following suggestions to the improvement of the manuscript:

1) The main evidence for the Cl atom chemistry arises from the data reported in Figure 4, and in particular from the non-constant trend of the data in Fig. 4A and from the trend of Fig. 4B. However, the conclusions drawn from Fig. 4A/B are not very clear for the reader. In particular, it should be better explained why the trends in Figure 4A are expected to be constant in the case of the OH chemistry alone. Secondly, a better

description should be given of the observed vs. expected trends of Fig. 4B (which are the expected trends is not clear upon reading, nor the reason why a certain trend should be expected from OH chemistry).

2) Page 6332, line 6. <<refereed>> should read <<referred to>>.

3) Page 6333, line 2. <<analysing>> should read <<analysis>>.

4) Page 6333, line 10. <<have been>> should read <<were>>.

5) Page 6333, line 11. <<fibber>> should read <<fiber>>.

6) Page 6336, line 6. <<between>> should read <<of>>.

7) Page 6336, line 7. <<rate>> should read <<rate constant>>.

8) Page 6339, line 9. <<equal 0.44>> should read <<equal to 0.44>>.

9) Page 6340, line 1. <<follow>> should read <<follows>>.

10) Page 6340, line 9. <<have been also>> should read <<have also been>>.

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