

## **Response to the comments by the editor**

1) A reader who has not read the whole manuscript does not understand how the two sentences on lines 7-10 are connected to each other. For example, what is "increasing by a factor of 2.4" referring to?

*We modified the rows 7-11 of the abstract as follows: "On average, the polluted air contained more particles than the clean air masses and generally, the concentrations decreased during cloud events. Cloud processing was found to take place, especially in the clean air masses, and to a lesser extent in the polluted air."*

2) mixed tense is sometimes used (e.g. section 2.3.4), while past tense would be preferred. Please check out throughout the text

*Past tense should now be used throughout the text.*

3) please either write "sulphate", "nitrate" and "ammonium" or write them as ions like  $\text{SO}_4^{2-}$  where 4 is subscript and 2- is superscript. Notation like  $\text{SO}_4$  is incorrect for inorganic ions (section 3.2.3 and elsewhere).

*Changed as suggested, also tables and figure 5c were updated accordingly.*

4) correction notation is "between N and M" or "from M to N" (e.g. line 27)

*These were changed as suggested.*

5) In reference list, ACP papers should have doi-index

*Added.*