

Interactive comment on “Non-polar organic compounds in aerosols in a typical city of Eastern China: Size distribution, gas-particle partitioning and tracer for PM_{2.5} source apportionment” by Deming Han et al.

Anonymous Referee #3

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The manuscript has the potential to add to the available body of evidence. This work details the size distribution, gas-particle partitioning and source apportionment of air-borne PM_{2.5}-associated non-polar organic compounds in one city of eastern China. In general, I recommend that the manuscript be accepted pending some major revisions as outlined below.

1. How about the air quality of Jiujiang City? Is there any public data about the air quality there?

C1

2. Please cite the references at the end of the sentence, not in the middle.

3. Line 97, please give the size of the quartz fiber filter used. And how was the air flow rate of high-volume air sampler? Detailed information should be given.

4. Line 98, did you mean that each sample was performed for five continuous days? Did you consider the filter would be oversaturated for such long sampling time?

5. How many samples did you get totally?

6. Line 107, why did you choose two sizes of quartz fiber filters? Was one for high-volume air sampler, while other for MOUDI? Modify clearly and suitably.

7. Line 129, why didn't you choose SIM mode?

8. Line 143, "PM 2.5 samplers were placed on the rooftop at EM site with distance between any two samplers <3 m, collecting for 12 h, then the added mass was calculated." This sentence is not written in proper English, and it's not clear what point is being made here. I recommend deleting this sentence.

9. When did you add the internal standards?

10. Should give some short information on SRM 2260, SRM 2260A and SRM1494.

11. I can't find you any statement about the recovery. Did you subtract the average blank level from all samples? Please clarify.

12. Please state what the levels were in the processing blanks, and how they compared to your lowest standard. How do you define the LOQ?

13. Did you include spike blanks? How was accuracy of the method evaluated?

14. Line 215, is it your own data or cited data from reference? How did you determine OM?

15. Figure 4, the image resolution is poor.

C2

16. Line 333-335, References should be cited.

17. Line 406, Line 362, Line 400, the abbreviations of the PAH compounds should be given the full expressions.

18. Authors should give some reasons for introduced elemental species, inorganic ions and OC/EC into PMF model.

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