

Author's response

Characteristics of particulate-bound *n*-alkanes indicating sources of PM_{2.5} in Beijing, China

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Referee Suggestions (from Omar Amador-Munoz):

Figure 6. It is Gasoline instead of Gesoline.

Author's response:

1. Figure 6. It is Gasoline instead of Gesoline.

Reply: Thank you for your suggestion, we found this error in the figure and we will correct it in the manuscript.

Modification: We have corrected the wrong label in figure from “Gesoline” to “Gasoline” (L596).

We would like to thank you again for taking the time to review our manuscript.

Referee Suggestions (from Anonymous Referee):

Yang et al. measured C13-C40 *n*-alkanes in Beijing on some days in 2020-2021. They noted reduced concentrations of *n*-alkanes compared to previous years. They found significant seasonal differences, and speculated on source contributions using PMF. This is suitable for publication for in ACP, after technical revisions of the following:

Page 1, line 30: Define the size range of “small particle sizes”.

Page 4 Line 124: Change “calibration curves is” to “calibration curves were”

Page 4 Line 134: Change “blank samples was pre-treat” to “blank samples were pre-treated”

Page 4 Line 138: Was the RSD for the extraction recovery uncertainty? The extraction

recovery is quite variable. Were the extraction recoveries used to correct final concentrations?

Page 5 Line 168: Add “beforehand” after “does not require the complex pollutant sources to be determined”

Page 5 Line 181: Reorder the figures, such that the second figure that is referenced is “Figure 2” not “Figure 8”. Reorder all figures so they are appropriately referenced throughout the manuscript.

Page 6 Line 220: Change “is a important parameter” to “is an important parameter”.

Page 7 Line 259: Change “sachuer” to “Schauer”.

Figure 6: Change caption “Gesoline” to “Gasoline”

Remove PMF manual as the supplemental information.

Author's response:

Dear referee:

Thank you for your suggestions on our manuscript, we will make technical revisions to our manuscript based on your comments in order to it can be published in ACP successfully. Please find our itemized responses and our revisions/corrections in below.

1. Page 1, line 30: Define the size range of “small particle sizes”.

Reply: Thank you for your suggestion. The “small particle sizes” means that the aerodynamic equivalent diameter of the particles ≤ 2.5 microns.

Modification: We have added the definition of the size range of “small particle sizes” in our manuscript (L30).

2. Page 4 Line 124: Change “calibration curves is” to “calibration curves were”.

Reply: Thank you for your suggestion. We will correct the grammatical errors in the manuscript.

Modification: We have changed the “calibration curves is” to “calibration curves were” in our manuscript (L125).

3. Page 4 Line 134: Change “blank samples was pre-treat” to “blank samples were pre-treated”

Reply: Thank you for your suggestion. We will correct the grammatical errors in the manuscript.

Modification: We have changed the “blank samples was pre-treat” to “blank samples were pre-treated” in our manuscript (L135).

4. Page 4 Line 138: Was the RSD for the extraction recovery uncertainty? The extraction recovery is quite variable. Were the extraction recoveries used to correct final concentrations?

Reply: Thank you for your questions. The RSD was for the uncertainty of the concentrations of *n*-alkanes in the parallel samples of the blank spiked recovery experiments. The recoveries were not used to correct for final concentrations.

5. Page 5 Line 168: Add “beforehand” after “does not require the complex pollutant sources to be determined”.

Reply: Thank you for your suggestion. We will added the “beforehand” in the corresponding position in our manuscript.

Modification: We have added the “beforehand” after “does not require the complex pollutant sources to be determined” (L169).

6. Page 5 Line 181: Reorder the figures, such that the second figure that is referenced is “Figure 2” not “Figure 8”. Reorder all figures so they are appropriately referenced throughout the manuscript.

Reply: Thank you for your suggestions. We will reorder all figures in our manuscript and modify the references to them according to your suggestions.

Modification: We have reordered the figures and adjusted their references in our manuscript (L582-599).

7. Page 6 Line 220: Change “is a important parameter” to “is an important parameter”.

Reply: Thank you for your suggestion. We will correct the grammatical errors in the manuscript.

Modification: We have changed the “is a important parameter” to “is an important parameter” in our manuscript (L222).

8. Page 7 Line 259: Change “sachuer” to “Schauer”.

Reply: Thank you for your suggestion. We will correct the spelling error here in the manuscript.

Modification: We have changed the “sachuer” to “Sachuer” in our manuscript (L261)

9. Figure 6: Change caption “Gesoline” to “Gasoline”

Reply: Thank you for your suggestion. We will correct the spelling error in the figure of the manuscript.

Modification: We have changed caption “Gesoline” to “Gasoline” in the figure of our manuscript (L596).

10. Remove PMF manual as the supplemental information.

Reply: Thank you for your suggestion. We will remove the PMF manual as the supplemental information on the next file upload.

We would like to thank you again for taking the time to review our manuscript.