

Thank you for your attention to the reviewer comments. I have a few minor items that still require attention before publication.

We appreciate the editor's time and efforts. We revised the comments one by one as showing follow.

Please indicate units of VOC:NOx. I assume it is ppb:ppb, and not ppb-C:ppb, but please clarify.

Yes, the unit is ppb/ppb, which has been added in the manuscript.

I don't understand this sentence at lines 196-198; please clarify: "The ratio of the largest residual contaminant that was removed from the sample by the blank subtraction is 188, indicating the much lower loading of the blank filters after the pre-treatment"

It means compounds such as compound A in the blank will be removed if the compound meet the three criteria (the same formula, the RT difference is less than 0.1mins and the same molecular weight) and then it was removed from samples. The sentence was changed into '*The ratio of peak areas for the contaminant in the samples to that in the blank filter is 188, indicating much lower loading of the blank filters after the pre-treatment.*'

Line 230 - this sentence is repeated twice: "To remove the influence of the seed particles, the particle-phase data collected in the second cycle were used as the particle-phase background correction"

thanks, delete the repeat one sentence in the manuscript.

Line 556 - "dominate" is misspelled

It was changed.

Fig 5 and 6 - the label for panel (b) is very small and could be large

It was changed into the clear captions.

The Font size of labels and caption were changed into lager size.