Dear editor Roya Bahreini,

Thank you very much for handling our manuscript and your comments. So far, we have revised the manuscript accordingly. Our point-by-point responses (in black) to each comment are listed below. And the manuscript also has been improved. Please check the manuscript for details.

## specific comments

Thank you for addressing the reviewers' comments and submitting the revised manuscript. I believe you have addressed the concerns raised and clarified their questions. In addressing the comments from the 2nd reviewer, I believe you still need to include a statement on the missing VOCs (formaldehyde, acetaldehyde, and benzaldehyde) that can have a high ozone formation potential; this can be added to lines 70-80 in the Introduction.

Reply: The relative content has been added in lines 81-83 in the improved manuscript as follows:

Besides, OVOCs such as formaldehyde, acetaldehyde, and benzaldehyde also have high ozone formation potentials (Yao et al., 2015;Wang et al., 2020).

The paper should also be clear that the reported OFPs could be underestimated because of this, so when reporting the values in the Results section, please include a statement to indicate this.

Reply: The relative statement has been added in lines 546-547 in the improved manuscript as follows:

However, due to the missing of OVOC species such as formaldehyde, acetaldehyde, and benzaldehyde in this study, the presented OFPs were underestimated.

## Last, I believe there's a typo in lines 449-452 and "0# diesel" needs to be corrected.

Reply: We have checked the original sentence and found that it would cause ambiguity. Therefore, this sentence has been revised and presented in lines 450-453 in the improved manuscript as follows:

As mentioned above, naphthalene and acetone were the absolute highest two VOC species for OGVs. While other VOC species were different from different fuels for OGVs, such as high alkenes, OVOCs and aromatics from exhausts of HFO fuel, but high alkenes, OVOCs and alkanes from exhausts of diesel fuels. We hope our replies have addressed your comments.

Sincerely yours,

Fan Zhang on behalf of the authors.