

Reply to the Reviewer's comments

Dear Editor,

We thank the reviewer for the insightful comments and positive feedback. We have revised our manuscript according to the suggestion.

The authors need to carefully use the OPs because they include the primary and secondary organic particles. These both particles have totally different morphology. The last part of in this study, I might suggest that the authors think about the primary organic particles. In one recent study, the authors found lots of burning-related particles: spherical organic particles which have been identified by tar ball in Beijing hazes (Persistent residential burning-related primary organic particles during wintertime hazes in North China: insights into their aging and optical changes. *Atmos. Chem. Phys.* 2021, 21, (3), 2251-2265. These particles can be important marker to represent the coal burning instead you mentioned all the OPs. If the authors can carefully revise part, the paper can be fully accepted for publication.

Reply: Many thanks. We replaced organic particles (OPs) with primary organic aerosols (POA) in the manuscript. We also cited the paper mentioned above.