

Interactive comment on “Carbonaceous aerosols on the south edge of the Tibetan Plateau: concentrations, seasonality and sources” by Z. Cong et al.

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The authors wish to thank the reviewer for the constructive comments and suggestions.

1. Among the arguments of this investigation is that the air pollutants from the south of Himalayas can be transported over to the north slope. However, this argument was supported only by the common seasonality of air pollution. I think more evidence is needed for such a key finding. I didn't see how the aerosols identified as coming from the south of Himalayas, nor how the air mass moved over the Everest. Could the common seasonal variations in aerosol mass loadings be a result of common seasonality

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of human activities in that region?

Response: We agree. Now more evidences (e.g. daily AOD values and CALIOP results) were provided regarding the pollutant transport process in this region. Details have been presented in the response file to the Referee #1 and Fig. 11 and Fig S3. Actually, there are little anthropogenic aerosol emission nearby NCO-P and QOMS, especially in the pre-monsoon season. We believe that local human activities are not likely to impact the atmospheric environment.

2. Levoglucosan was used as a marker of biomass burning throughout the paper. Thus, Levoglucosan should be included in the data summary table, and the correlation between key components (OC, EC, WSOC...) and Levoglucosan merits presentation as a figure.

Response: Now the data of levoglucosan concentrations were added in Table 1. And the Supplement Figure S2 has been moved to the main text as Figure 8.

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