

Comment on **essd-2022-211**

Anonymous Referee #3

Referee comment on "High-resolution physicochemical dataset of atmospheric aerosols over the Tibetan Plateau and its surroundings" by Xinghua Zhang et al., Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2022-211-RC3>, 2022

This is a very interesting manuscript since aerosol measurement over the TP is quite challenging due to adverse natural conditions, resulting in very limited aerosol measurements study over the TP. The data set reported in this manuscript certainly help to researchers working in atmospheric science. Finally, I realized that this paper needs detailed and careful editing. The introduction section is poorly written and the author could not emphasize the importance of the present study and how it will improve the current understanding of aerosol characteristics over the TP. What are the possible errors in data acquisition, analysis and its limitation should be discussed in more detail? In whole manuscript, authors simply collected the important dataset at different locations and failed to explain the scientific rationale and finding of the manuscript. The result and discussion section are very poorly written and the results cannot have justified with proper explanations/mechanisms. The conclusion section must be rewritten by highlighting the major findings of the present study and the importance these observed data set in terms of climate implications. Therefore, current study can be acceptable only after major revision in manuscript.

- Revised the whole abstract focusing the key findings of your manuscript rather than a general statement.
- Authors should include a table for earlier observed results and a comparative discussion with current findings.
- Section 2: Observation site and descriptions should be shortened.
- Similarly, section 3.2 and 3.3 should be shortened and other necessities can be submitted as supplementary materials.
- Author should include aerosol long-range transportation and the radiative assessment of observed aerosol species which could provide some valuable information.