Comment on acp-2022-291

Anonymous Referee #1

Referee comment on "Measurement report: Chemical components and ^{13}C and ^{15}N isotope ratios of fine aerosols over Tianjin, North China: year-round observations" by Zhichao Dong et al., Atmos. Chem. Phys. Discuss., https://doi.org/10.5194/acp-2022-291-RC2, 2022

This manuscript entitled "Measurement report: ---- observations" by Dong et al. presents the comprehensive characterization and seasonality of carbonaceous, and nitrogenous components and inorganic ions as well as the stable carbon and nitrogen isotope ratios of total carbon and nitrogen in PM2.5 collected continuously at an urban location and for one-month in each season at a sub-urban location in Tianjin, north China over a one year period during 2018-2019. Overall, the data interpretation is logical and the paper is well written. Therefore, I recommend that this manuscript can be published after addressing the following minor remarks.

- Typos and language errors need to be corrected throughout the text. For example: Abstract, L15: '--- water-soluble OC (WSOC ---- '. The bracket should be closed. L20: '---- winter, while biological and/or marine emissions ---' should be changed to "---- winter, while terrestrial and/or marine biological emissions ---".
- Introduction, L36~: I suggest the authors to introduce importance/impacts of specific (bulk) components, after the general introduction of aerosols.
- Aerosol sampling: Since each PM2.5 sample was collected for relatively longer time (72 hrs), it is important to describe the potential sampling artefacts as well.
- Figures 1 & other: I suggest the authors to depict the seasonal separation as well in the temporal variations, in order to provide the clear visibility to the reader, like in Figure 4.
- L217-219 & 249-252 ..: Since the annual and seasonal data have been presented in Table 1, it is better to avoid noting the same repeatedly in text, rather referring the Table 1.