

## Comment on acp-2022-100

Anonymous Referee #1

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Referee comment on "Measurement report: The 10-year trend of PM<sub>2.5</sub> major components and source tracers from 2008 to 2017 in an urban site of Hong Kong, China" by Wing Sze Chow et al., Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2022-100-RC1>, 2022

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The essential information for major sources as well as evaluation and planning of control measures in Hong Kong, China, was proposed based on 10 years of long-term monitoring data of PM<sub>2.5</sub>. Overall, it is an interesting study. The test and analysis procedures are reliable and the amount of data are sufficient. The manuscript can be accepted with the following revisions:

- Chlorine loss of sea salt aerosol was always found in the sampling area, however, particulate chloride were not found in the chemical analysis and long term variation analysis. It was also suggested to analyze the trend variation of Criteria gaseous pollutant data.
- Figure 1: The resolution of Figure 1 needs to be improved.
- Lines 100-113: The authors collected blank samples as a background correction? and how were filter samples stored after collection? More information about sampling and storage should be presented in Ms.
- Double "in" were found in line 178. Moreover, please recheck the English by a native Editor
- Line 136: Table 1 should be revised to a trilinear table.
- Line 230: "For winter PM<sub>5</sub>, the relative importance of OM increased (up from 31% in 2008 to 40% in 2017)... as well as EC (down from 7.8% to 5.3%)." I can't find any value of 31% in 2008 to 40% in 2017 in the wintertime figure (Figure 3).
- Line 231: Valid numbers should be uniform.
- Line 233: Do authors have any ideas about the decrease percentage of EC in summer was about 4 times higher than that in winter?
- Figure 3: The percentage values in the chart use an art font that is unclear and needs to be modified.
- Line 392: "The concentration levels of shipping emission tracers (V and Ni)... respectively", Is this result from Table 2?
- Line 418: "K+ more representative of burning crop residues high in K+ content vs. levoglucosan representative of burning of cellulose, thus all types of vegetative biomass including hill fires." Grammar errors. The sentence components are unclear and there is no cause-and-effect relationship in this sentence.
- Line 418: "The two elements are highly correlated, reflecting their common material sources and spatial origins", are the correlation values in the literature or your results?

- Line 499: Valid numbers in Table 4 should be uniform.