

This draft of the paper is much improved. I would recommend publication, following some minor revisions.

Section 3.2, last paragraph – The authors state that there is good correlation between the HGF vs Inorg/(Org + BC) ($r^2 = 0.38 - 0.47$), but not good correlation between HGF and O:C ($r^2 = 0.23$). These r^2 values do not seem so different to me as to state that one shows good correlation and the other bad. The authors should change the phrasing there to simply say that one has better correlation than the other. Unless, of course, there is some other justification for this ranking that I'm not aware of. In that case, state the justification.

Section 3.4.2 – Switch this section with section 3.4.3 for a more natural flow.

Section 3.5 – Why is this called “Synthetic Comparisons”. I would call it something like “Comparison to other ambient measurements”, because only one of the studies you compare it to is a lab-based study.

Figure 1 – Put a marker on the x-axis that indicates which time periods are considered polluted vs. clean. This will make it visually more clear.

Figure 5 – Y-axis labels need units, and the 4 plots are too close together.

Figure 6 – Clearly label the three plots as polluted, clear, etc. Also, it would be helpful if all three were on the same latitude and longitude scale.

Figure 12 – Mei et al is misspelled as “Mie” in the plot legend.

All figures – standardize the formatting for all figures.