

The study includes an investigation about the source apportionment of black carbon and combustion-related CO₂ in order to determine source-specific emission factors. The analysis was carried out on a three-month long BC and CO₂ dataset collected at three monitoring locations in Ljubljana. The authors analysed BC and CO₂ concentrations. I highly recommend publishing the revised manuscript. I list below some comments and additions that would substantially improve the manuscript.

Line 172: Is all that burns pine tree? If not, I suggest including variability in the CC for other species.

Line 172: “the source-specific AAE pair of 1.15 and 2.1 was used for the FF- and BB-related BC components respectively” Why these values? Justify them.

Line 232: Do you think the model is applicable to other cases? I think there are a lot of discards, for example a city with gasoil and biomass heating. I like the approach of the study very much, but I think it is applicable to few cases, so I think it should be commented on.

Line 277: Add refs with same pattern, e.g.

<https://www.sciencedirect.com/science/article/pii/S0169809521005366>

Line 232: Do you think the model is applicable to other cases? I mean, I think there are a lot of discards, for example a city with gasoil and biomass heating. I like the approach of the study very much, but I think it is applicable to few cases, so I think it should be commented on.

Figure 3: Change the CO₂ dashed lines to make the figures easier to read.

Line 345: ABL data available? I believe that obtaining the ventilation coefficient (indicated in the previous ref) would provide information about pollutant dispersion. A model to obtain ABL is available at: <https://www.ready.noaa.gov/READYamet.php>