

The manuscript has improved considerably and can be published if the remarks listed below are implemented.

In the methodological section it must be clarified the total apportioned variable is the sum of the 14 trace elements. This is not obvious as SA studies, including some of those cited by the authors (Liu et al, 2019; Ji et al., 2018), most commonly apportion the total PM on the basis of elements and other chemical components. Similarly, in section 4.2, the sentence “In this section the final results of the elemental PM10 source apportionment are presented and validated” must be reworded to clarify the total variable is only the sum of the 14 elements used for the analysis. The same applies to Figure 2 where it must be stated that the average concentration is the sum of the elements.

Combining measurements obtained with different size cuts (in the fine fraction) introduces an additional degree of uncertainty but also gives the chance to handle a wider range of information at once. The additional uncertainty due to using different sizes could be modelled with PMF/ME-2. However, I agree that in this case it would be challenging to combine elemental data in the fine + coarse fractions with those of other components in the fine fraction only.

There are other recent source apportionment studies using Xact 620/625 data than the six listed in Page 3 line 11 (you find some suggested papers in the references below).

The discussion about road salt is more convincing now. However, the composition of the deicing products may vary considerably between countries. It would be more appropriate to check with European rather than US data.

The characterization of the industrial source is still rather vague. The authors should support their statement about the similarity with the profiles in the literature better. Two of the cited emission sources, smelter and coal combustion process, are pretty different from each other. In Ostrava, Vossler et al. identified two point sources associated with coal combustion: a power plant (Coal Power) and a “dirty” industrial profile (Industry 1) with high content of typical biomass burning components (K and Rb). None of these is a good representative of the industry sources.

The conclusion that traffic is the main source of PM10 elements in a traffic site is weak as outcome of a source apportionment study. I suggest putting more emphasis on the influence of other sources (fireworks, as suggested by the authors) or background levels on the elemental composition at a traffic site.

## References

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