

*We thank the Reviewers and the Editor for their positive evaluation of this work and for their useful comments. Our replies to each comment are reported below and refer to the file “Cadeo et al\_REV\_tracked”, where all changes to the original manuscript are visible.*

**Reviewer #2:** Measuring the elemental composition of atmospheric particulate matter (PM) in high resolution is of interest to better identify emission sources. Cadeo et al. conducted a 6- month measurement to evaluate the performance and data quality of an online Xact® 625i trace elements monitor. This is good work with novel results and logical writing, and is recommended to be published in AMT after addressing the following problems.

Major comments:

1. Lines 318-321: Please discuss the instrument limitation, especially for Al. If the extremely high concentration of Al measured by the online instrument was likely caused by the “Al filter”, the Xact® 625i should not be used to measure Al. At least, the authors should clarify that if it is possible to develop a correction method to eliminate the constant upward background influence.

*Done, see the revised version of the paper, see lines 377-384 and 465-467.*

2. Lines 327-337: Please explain what is the difference between the forerunner version of Xact (Xact 620) used by Park et al. and Xact® 625i, leading to a better measurement performance in the present study.

*Done, see the revised version of the paper, lines 393-397.*

Minor suggestion:

1. Suggest changing the word “realized” in lines 99 and 350 to “conducted”.

*Done.*

2. Please follow Figure 2, adding element names to the subplots in Figures 3 and 4.

*Done, see Figures 2-5.*