

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.
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.

Minor suggestion:

1. Suggest changing the word “realized” in lines 99 and 350 to “conducted”.
2. Please follow Figure 2, adding element names to the subplots in Figures 3 and 4.