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Interactive comment on "Quantitative measurement of PM_{10} by means of X-ray fluorescence spectra" *by* E. Busetto et al.

Anonymous Referee #3

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The authors propose an automatic sampling and measurement station (PM-SMS) for air filter elemental analysis. This instrument may have relevance in environmental monitoring.

Comments:

- The authors must properly check the recent literature regarding filter chemical analysis. - The authors design a new XRF instrument or the modified a commercial one? Technical details must be given. - p.4 line 22: how are the samples produced? Are they standard samples? They must be better defined. In the pattern of FIG.1 all the metals are present. Then, have been used five samples or just one for the calibration? How exactly has the calibration been performed? - TABLE 1: why only two elements have

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been considered? - p.4 line 29: the mathematical term deconvolution is not properly used. - p.5 line 16: errors must be given - p. 5 line 17: what salts have been used? The sample preparation procedure is missed. - FIG.2 The presence of contaminants in the polymeric film is relevant. Wasn't other option? -p.6 line 23: what are the standard sampling rules? A reference must be given. What means "we randomly selected a part . . .."? - How have the concentration errors been calculated? - Figure 3a and 3b: Have the straight lines y-intercept equals to zero? - Figure 4: This results is quite surprising. How have the experimental errors for XRF values been calculated?

Interactive comment on Atmos. Meas. Tech. Discuss., 6, 4313, 2013.

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