Interactive comment on "Bias caused by water adsorption in hourly PM measurements" *by* Gyula Kiss et al.

Anonymous Referee #3

This manuscript presents results from valuable experiments on the adsorption of water by Beta attenuation monitors. The results are particularly of importance for research groups, who perform measurements with a time resolution of one hour or so. However, as indicated below, I have several (mostly minor) comments, so that some revision is needed before this manuscript can be published in AMT.

Specific comments:

1. Lines 59-61: A literature reference would be welcome for the statement in this sentence.

2. Line 141 and further within the manuscript: The term "filter mass" is confusing; it clearly does not denote the total filter mass, but some type of "apparent net" mass.

3. Technical and other (mostly minor) corrections:

- Line 7: Replace "PM" by "PM mass".

- Line 10: Replace "retaining significant" by "retaining a significant".

- Line 26: Replace "2013.)" by "2013).".

- Line 27: Replace "of mass" by "of the mass".

- Line 35: Replace "economy" by "the economy" and replace "efforts PM10" by "efforts the PM10 mass".

- Line 36: Replace "Environment, European Environment Agency, Bigi" by "Environment; European Environment Agency; Bigi".

- Line 37: Replace "as PM10" by "as the PM10".

- Line 44: Replace "in urban" by "in an urban".

- Line 48: Replace "while RH" by "while the RH".

- Line 49: Replace "was more" by "was a more".

- Lines 52, 78, 149, 151 and 247: Replace "e.g." by "e.g.,".

- Line 52: Replace "high PM" by "high PM mass".

- Line 53: Replace "as tapered" by "as the tapered".

- Lines 54 and 308: Replace "Maclas" by "Macias".

- Line 57: Replace "World, Air" by "World; Air".

- Line 64: Replace "for the samples" by "for samples".

- Line 68: Replace "resulted in" by "resulted in a".

- Line 73: Replace "et al. 2004" by "et al., 2004".

- Line 76: Replace "found best" by "found the best".

- Line 79: Replace "Pittsburgh" by "the Pittsburgh".

- Line 83: Replace "of original" by "of the original".

- Line 84: Replace "Grober et al. 2005" by "Grober et al. (2005)".

- Line 87: Chung et al. (2001) is not in the Reference list.

- Line 88: Replace "with TEOM" by "with a TEOM".

- Line 89: Replace "while BAM" by "while the BAM".

- Lines 90 and 91: Replace "with TEOM" by "with the TEOM".

- Line 94: Replace "by TEOM" by "by the TEOM".

- Line 99: Replace "while BAM" by "while the BAM".

- Line 103: Replace "Investigations" by "The investigations".

- Line 115: Replace "with heated" by "with a heated".

- Line 117: Replace "monitor" by "monitor;".

- Line 119: Replace "inlet heated" by "the inlet heated".

- Line 126: Replace "Fig. 1." by "Fig. 1".

- Line 129: Replace "apparent" by "the apparent".

- Line 131: Replace "were observed" by "was observed".

- Line 146: Replace "and filter" by "and the filter".

- Line 162: Replace "sampling" by "the sampling".

- Line 163: Replace "of heated" by "of a heated".

- Line 164: Replace "when non-heated" by "when a non-heated".

- Line 165: Replace "that heated" by "that a heated".

- Line 168: Replace "of average" by "of the average".

- Line 171: Replace "with blank" by "with the blank".

- Line 184: Replace "but the diurnal" by "but diurnal".

- Line 186: Replace "Fig. 3a." by "Fig. 3a".

- Line 191: Replace "Fig. 2a-b." by "Fig. 2a-b" and replace "of filter" by "of the filter".

- Line 196: Replace "with heated" by "with a heated".

- Line 202: Replace "the sampling" by "the July sampling".

- Line 214: Replace "with heated" by "with a heated".

- Line 233: Replace "empty glass" by "an empty glass".

- Line 260-262: There is not referred to this reference within the text.

- Lines 261, 265 and 324: Replace "J Air Waste Ma" by "J. Air Waste Manage. Assoc.".

- Line 303: Replace "12:4" by "12, 43".

- Line 309: Replace "904" by "904-907".

- Line 316: Replace "Ruppecht" by " Rupprecht".

- Lines 340-341: Titles of journal articles should be in lower case instead of in Title Case.

- Line 342: Replace "Sci Tech." by "Sci. Technol.".

- Line 347: Replace "I. and" by "I., and".