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Atmospheric Measurement Techniques Discussions

Interactive comment on "Minimizing light absorption measurement artifacts of the Aethalometer: evaluation of five correction algorithms" *by* M. Collaud Coen et al.

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Answer to John Ogren:

The authors thank John Ogren for his valuable comments and suggestion. The multiple scattering partial correction is clearly the greatest one, since it divides the measured absorption coefficient by a factor between 2.8 and 4.5 (see Table 4). As pointed out by the referee, this does not mean that the other partial corrections are negligible and can be simply omitted. As suggested by J. Ogren, a new figure (Figure 3) has been introduced in the revised manuscript to illustrate the pitfalls of ignoring the filter-loading

and the scattering partial corrections. It shows the effect of both partial corrections as a function of the attenuation for 5 stations (JFJ, CAB, MHD, HOP, THE). The manuscript is also modified to describe this new figure (§3.1.1, 3.1.3 and 3.3) and to better discuss the weight of each partial correction (§3.3 and 4.3).

Interactive comment on Atmos. Meas. Tech. Discuss., 2, 1725, 2009.