

***Interactive comment on “The “dual-spot”  
Aethalometer: an improved measurement of  
aerosol black carbon with real-time loading  
compensation” by L. Drinovec et al.***

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Please check the reply to all three referees in the PDF supplement.

The requested changes to: Fig. 1; Fig. 2a, 2b, 2c; Fig. 4a, 4b; Fig. 9a, 9b, 9c; were made, and Fig. 12 was added to a new section 3.7. The detailed captions to figures can be found in the text of the reply.

Please also note the supplement to this comment:

C5191

<http://www.atmos-meas-tech-discuss.net/7/C5191/2015/amtd-7-C5191-2015-supplement.pdf>

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Interactive comment on Atmos. Meas. Tech. Discuss., 7, 10179, 2014.

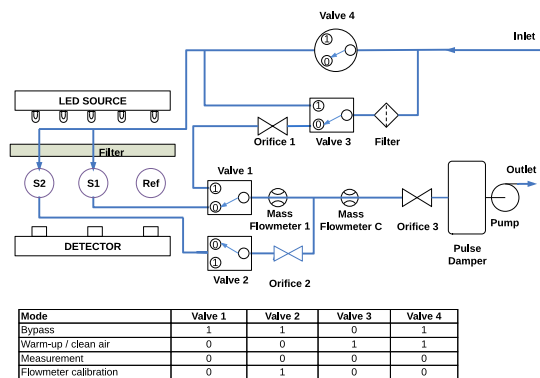


Fig. 1. Figure 1. The AE33 flow diagram.

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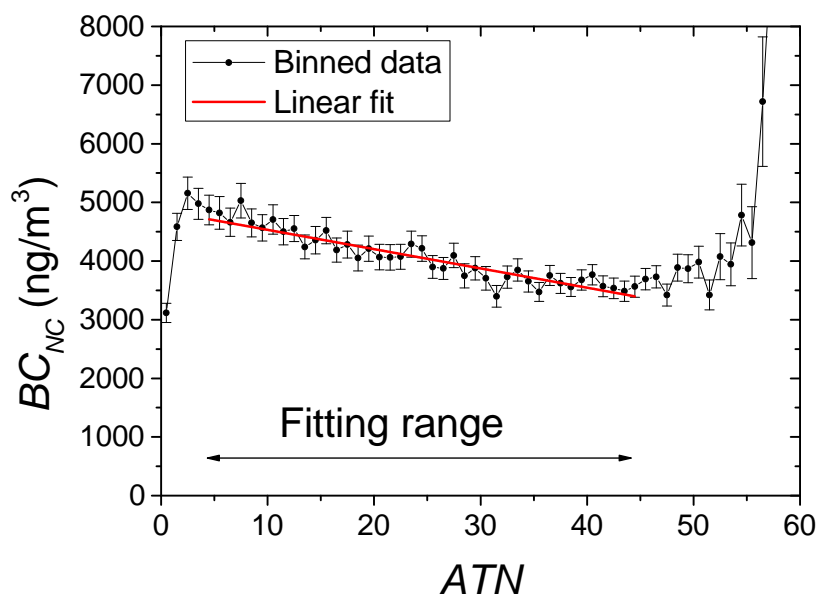


Fig. 2. Figure 2a. An example of the analysis of the filter loading effect BC(ATN).

C5194

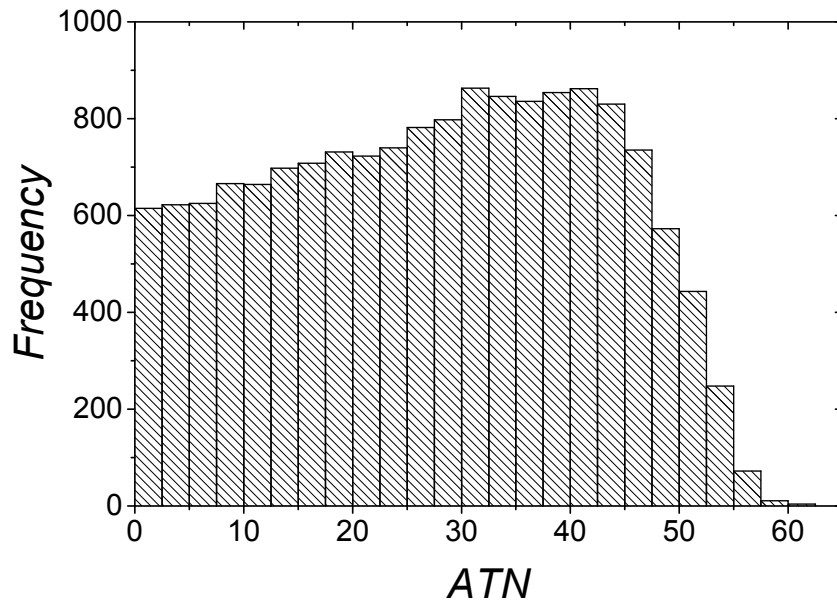


Fig. 3. Figure 2b. Frequency distribution of the number of measurements.

C5195

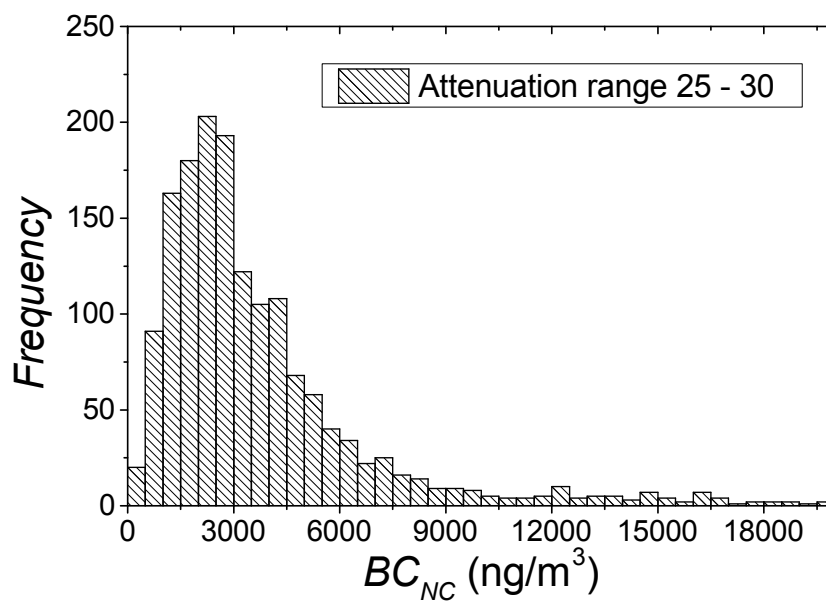
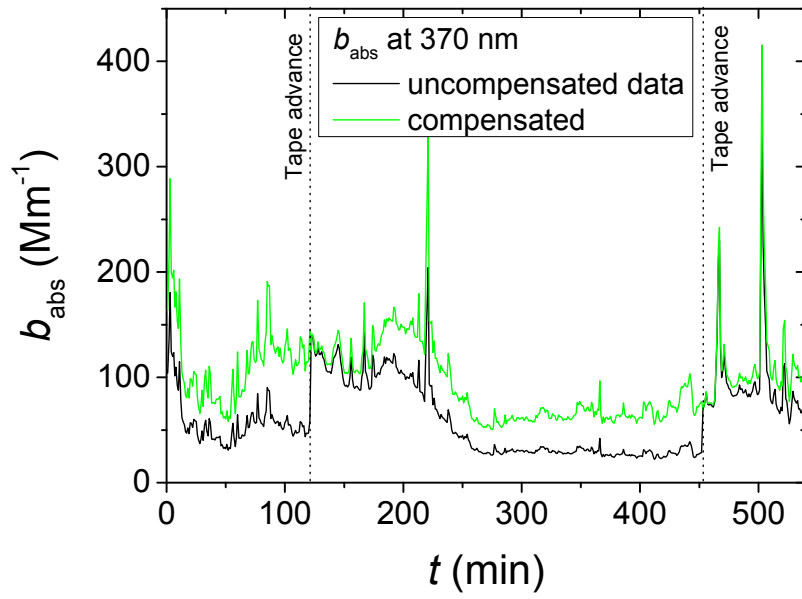


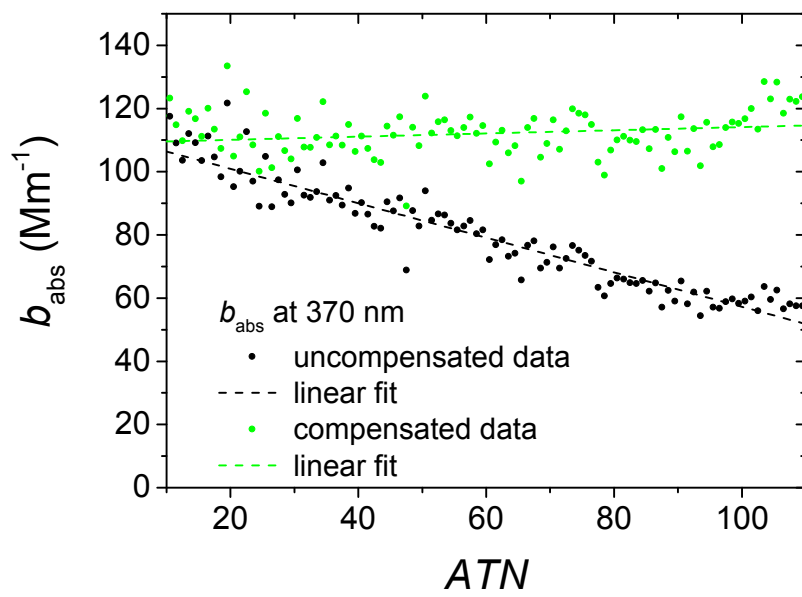
Fig. 4. Figure 2c. BC frequency distribution.

C5196



**Fig. 5.** Figure 4a. Comparison of the uncompensated and compensated  $b_{\text{abs}}$  time series measured at 370nm: raw and compensated data.

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**Fig. 6.** Figure 4b.  $b_{\text{abs}}$  (ATN) analysis of raw and compensated data for the whole campaign.

C5198

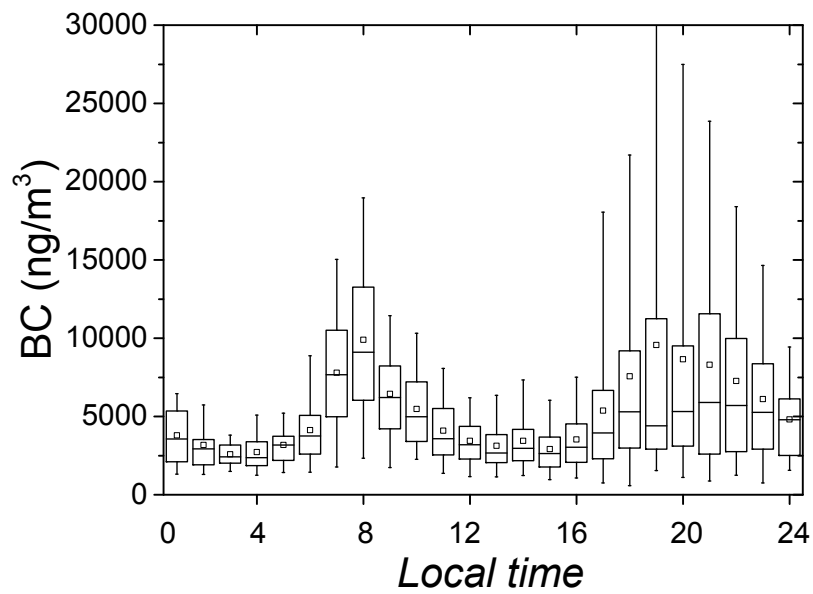


Fig. 7. Figure 9a. Diurnal plot of BC.

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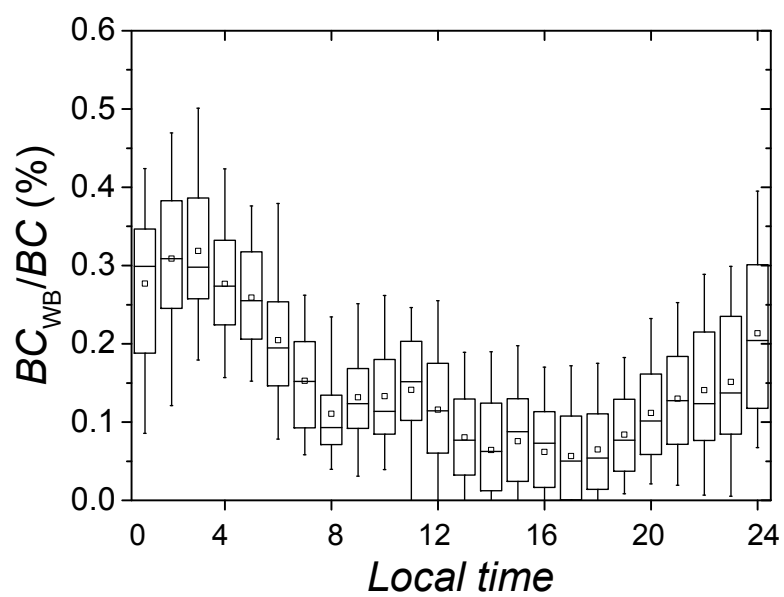
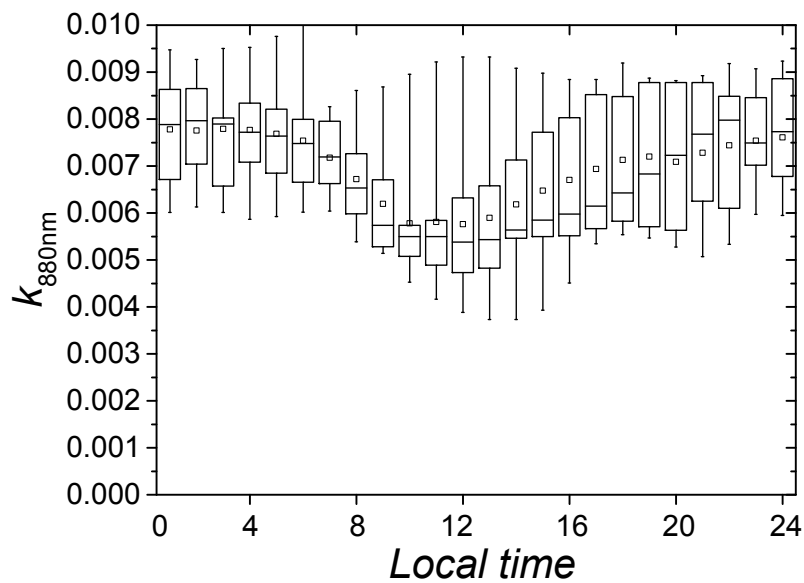


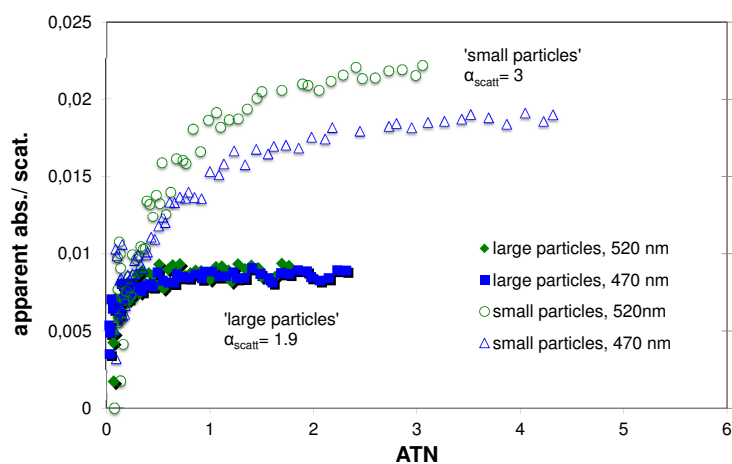
Fig. 8. Figure 9b. Diurnal plot of contribution of biomass burning to total BC.

C5200



**Fig. 9.** Figure 9c. Diurnal plot of the compensation parameter  $k$  at 880 nm.

C5201



**Fig. 10.** Figure 12. The AE33 instrumental cross-sensitivity to scattering – the ratio of apparent absorption coefficient and the scattering coefficient as a function of attenuation (ATN).

C5202