



Corrigendum to “Single Particle Soot Photometer intercomparison at the AIDA chamber” published in Atmos. Meas. Tech., 5, 3077–3097, 2012

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Published: 2 October 2015

The top axis scale and the bottom axis label of Fig. 4 in the above manuscript are erroneous. The bottom axis shows the mobility diameter scale (it was erroneously labelled as “BC mass equivalent diameter”) and the top axis scale showing the particle mass is biased (only slightly in the region of interest below 1 fg). A corrected version of this figure is provided in Fig. 1 below. This correction has no essential influence on the conclusions drawn in the manuscript, although it needs to be clarified that the D_{50} values reported in Sect. 4.1.3 of the original manuscript refer to fullerene soot mobility diameters. Besides, the best lower detection limit, reached by the LGGE instrument, corresponds to ~ 0.11 fg rather than ~ 0.2 fg. However, this is not a generally applicable limit as instrument to instrument variability is considerable (cf. Fig. 1).

The third sentence in Sect. 4.1.1, indicating the range across which the BC (black carbon) mass calibration was done, is also not quite accurate. The corrected sentence reads, “Size-selected fullerene soot particles with mass between 0.08 fg ($D_{MEV} = 44$ nm) and 50 fg ($D_{MEV} = 377$ nm) were fed into the common sampling manifold for this purpose (Sect. 2.2)”. This correction does not affect the findings in the above manuscript. (Note that the BC core mass equivalent diameter, D_{MEV} , is calculated from the particle mass assuming a void-free BC material density of 1800 kg m^{-3} .)

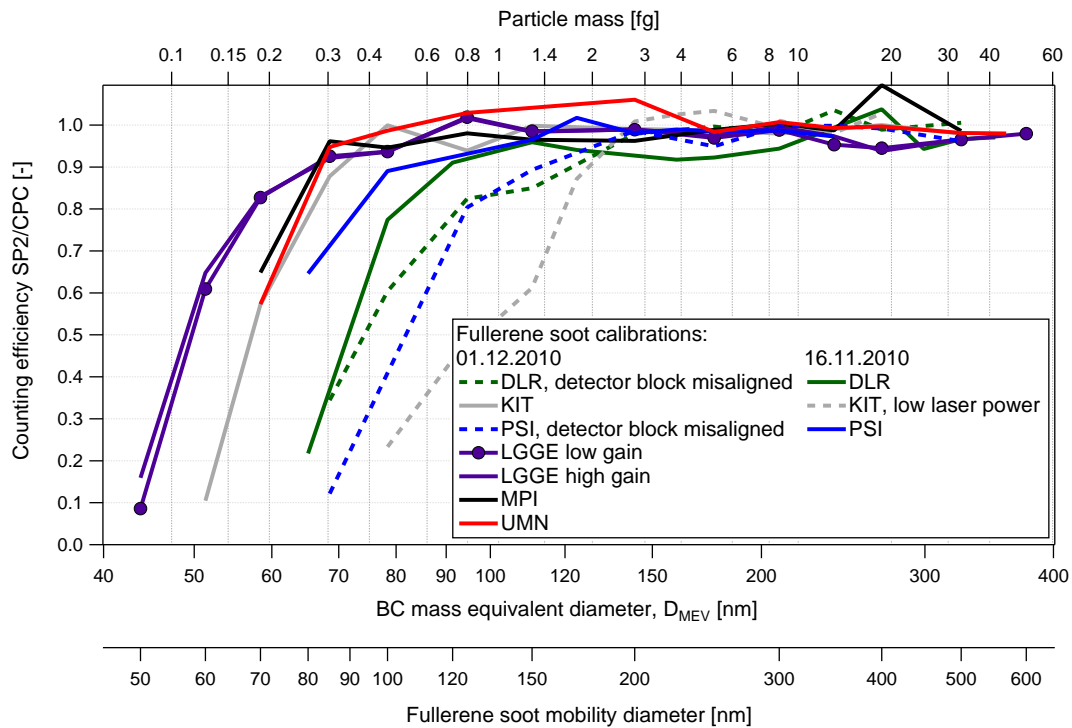


Figure 1. Counting efficiency of the SP2s for fullerene soot measured on 16 November 2010 and 1 December 2010. The counting efficiency is here defined as the number of singly charged particles measured by the SP2 over that measured by the CPC. It is shown as a function of the particle mobility diameter (as selected by a differential mobility analyzer), the particle mass (inferred from the mobility diameter using the fullerene soot effective density from Gysel et al., 2011), and of the particle mass equivalent diameter (assuming a void-free BC material density of 1800 kg m^{-3}). The dashed-line style indicates that the counting efficiency is affected by a misalignment or insufficient laser power.