

Interactive comment on “Aerosol quantification with the Aerodyne Aerosol Mass Spectrometer: detection limits and ionizer background effects” by F. Drewnick et al.

Anonymous Referee #1

Received and published: 24 November 2008

This paper reports a systematic study of detection limits of the major chemical species measured by the Aerodyne AMS series. It presents a new method to continuously determine the detection limit during regular measurement. Data derived from the new method agree well with the traditional methods. The influences of various factors on the AMS detection limits are carefully investigated. It is a well written paper and should be published in AMT after minor revisions.

Page 178, Line 19: More information should be added to the particle generation part such as What kind of compound was used for each type of particle? What were the size distributions at different mass concentrations especially for the sampling size range of

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper



AMS?

Page 179, Line 10: What is the definition of organics here? What m/z signals were chosen for the DL calculation? The answers for these questions may be well known for the AMS society but not for the general audience.

Page 182, Line 20; Page 201, Fig. 3: Dose each column in Fig. 3 represent the DL increase at a different mass concentration? Then the concentration values should be labeled. Apparently, no mass concentration dependence was observed here. Why? The "persistent background" may explain the large DL increase of sulfate but not for the large variations as shown in Fig. 3(c)&(d).

Interactive comment on Atmos. Meas. Tech. Discuss., 1, 169, 2008.

AMTD

1, S48–S49, 2008

Interactive
Comment

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper

