

Interactive comment on “Atmospheric number size distributions of soot particles and estimation of emission factors” by D. Rose et al.

Anonymous Referee #1

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Overall the paper is well structured and clear.

Minor comments:

Page 10130 Line 5: I assume it should be ME not IFT.

Page 10130 Line 28: It would be good to define the abbreviation of DMPS at least one time.

Major Comments:

- The author should state how huge the particles losses of the inlet system were at the different sites. Additionally, losses inside the VTDMA system (especially for the smaller

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diameters) would be of interest. Those losses will have impacts on the results of the emission factors.

- It could be added why specifically 300°C was chosen for the thermodesorber temperature and not for example 400°C.

- With equation (1) and (2) overall the OSPM model is explained but still it would be helpful to give more information for function F. How precisely F is modelled or what kind of input parameters one needs to yield F.

- I do not really agree with sentence in line 17, on page 10137. “These laboratory results are often very sensitive to the way the exhaust is diluted”, but this is the case for the nucleation mode (volatile particles). The paper refers to the soot mode (non-volatile particles, less volatile particles), which is quite stable and well characterised at the test bench.

Interactive comment on Atmos. Chem. Phys. Discuss., 5, 10125, 2005.

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