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ACPD 11, C3921–C3924, 2011

> Interactive Comment

Interactive comment on "Number size

distributions and seasonality of submicron particles in Europe 2008–2009" by A. Asmi et al.

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"NUMBER SIZE DISTRIBUTIONS AND SEASONALITY OF SUBMICRON PARTI-CLES IN EUROPE 2008-2009" by A.Asmi on behalf of all authors

We would like to thank both referees for their very kind, timely, and useful comments. Their positive comments have been very encouraging. The manuscript is, on our opinion, greatly improved for their suggestions.

GENERAL CORRECTIONS: Here are some general changes we did to the document:

- Station JRC name is changed to station "JRC-Ispra" with acronym ISP to be consis-



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tent with other stations (stations are named generally by location, not by institute)

- station CBW data has been re-evaluated (see comment from B.Henzing at www.atmos-chem-phys-discuss.net/11/C3137/2011/). The conclusions, results and pictures now are consistent with this comment. This has changed (slightly) figures 7, 9-11,13,14,16 (the change is too small to see in figs 15 and 12) and tables 4,5,6. The references to CBW data have also been very slightly updated. (fig 2 attached, corresponds to Figure 7 of the manuscript)

- The authors responsible for the Kosetice station reported a mistake in their data analysis. The lack of correction factor for CPC efficiency did affect their reported concentrations. The revised manuscript includes corrected figures and tables related to these changes (similar as with CBW, above). The overall difference is approximately 13% larger concentrations after these corrections. (Fig 1 attached, corresponds to figure 5 of the manuscript)

Interactive comment on Atmos. Chem. Phys. Discuss., 11, 8893, 2011.

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KPO овк BOS 10000 14000 10000 12000 8000 8000 10000 dn/dlog $_{10}$ d $_{ m p}$ [cm $^{-3}$] 6000 6000 8000 6000 4000 4000 4000 2000 2000 2000 0 <u>----</u> 8 10 0 0 20 30 4050 70 100 200 300 500 20 30 4050 70 100 200 300 500 810 20 30 40 50 70 100 200 300 500 [^] 8 10 HPB MPZ WAL 4500 9000 12000 4000 8000 10000 3500 7000 dn/dlog $_{10}$ dp [cm 3] 3000 6000 8000 2500 5000 6000 2000 4000 1500 3000 4000 1000 ·2000 2000 500 1000 0 0 0 30 4050 70 100 8 10 20 30 4050 70 100 200 300 500 ⁶810 20 200 300 500 810 20 30 4050 70 100 200 300 500 Particle diameter [nm] Particle diameter [nm] Particle diameter [nm]

Fig. 1.

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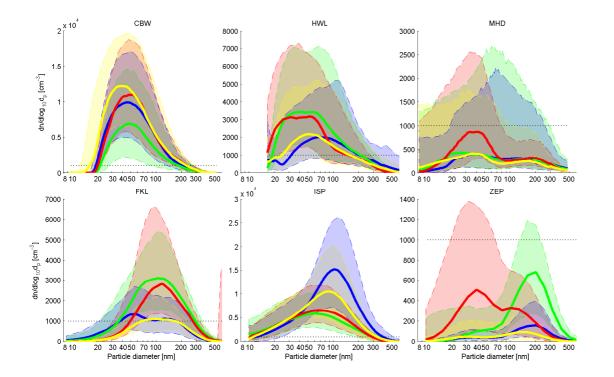
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Fig. 2.