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ACPD 8, S2753–S2754, 2008

> Interactive Comment

Interactive comment on "A single parameter representation of hygroscopic growth and cloud condensation nucleus activity – Part 2: Including solubility" by M. D. Petters and S. M. Kreidenweis

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Received and published: 16 May 2008

This is a useful manuscript, appropriate for publication in ACP. I have only one comment in addition to what the other two reviewers have said. I believe it would be instructive to generate a figure which shows the following Köhler curves for two-component particles consisting e.g. of 5% of completely soluble matter plus 95% of matter with intermediate solubility (mis) with fixed dry size: 1) a curve assuming the mis is completely insoluble; 2) a curve assuming the mis is completely soluble; 3) a set of curves, each with a different solubility for the mis. Such a figure (or a pair of figures for two different dry sizes) will show very clearly why the blue area of Fig. 3 is where it is. It also brings up





the issue of critical diameter, which has not been mentioned in the ms. (Unfortunately I cannot show the figure I am talking about in the comment here, but I will send an example to the authors.)

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 5939, 2008.

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8, S2753-S2754, 2008

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