

Supplementary material for A meta-analysis of particle water uptake reconciliation studies

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Introduction

The file Figures_S1_S2.pdf shows the figures S1 and S2, referred to in the text.

The rest of the pdf files in the supplementary material show N_{CCN} and time-series data for each of the datasets used in this study.

The first page of each pdf file shows box and whisker plots of N_{CCN} as a function of supersaturation, derived using the following methods:

- M1 Polydisperse N_{CCN} (if available)
- M2 N_{CCN} integrated from the CCN size distribution
- M3 N_{CCN} derived using threshold diameter as a cut-off in the particle size distribution
- M4 as M3 using average threshold diameter
- M5 as M3 using average size distribution
- M6 as M3 using average threshold diameter and size distribution
- M7 N_{CCN} derived from κ_{GF}
- M8 as M7 using average κ_{GF}
- M9 as M7 using average size distribution

At each supersaturation, the boxes represent the median and interquartile range and the whiskers show the 10th and 90th percentile range. The filled black circles show mean values and small grey crosses show individual points.

The second page of each pdf file shows the time-series of the data products from each instrument. The top three panels are from the CCNc and are sep-

arated by supersaturation. From the top they are threshold diameter, N_{CCN} derived using the threshold diameter (M3), and κ derived from the threshold diameter. The next panel is κ derived from the mean growth factor from the HTDMA, and is separated by dry diameter. In the bottom panel, κ_{GF} has been recalculated for each supersaturation, and subtracted from $\kappa_{D_{50}}$.

The third page of each pdf file shows the time-series of the normalised GF distribution derived from the HTDMA data for each dry size. The red traces on these image plots show the mean GF . These data have been corrected to depict the GF at 90% RH.

The files are:

1. Figures_S1_S2.pdf
2. Amazonia_supp.pdf
3. Borneo_supp.pdf
4. Chilbolton_supp.pdf
5. Discovery_supp.pdf
6. Hornisgrinde_supp.pdf
7. London_Summer_supp.pdf
8. London_Winter_supp.pdf
9. MaceHead_Summer_supp.pdf
10. MaceHead_Winter_supp.pdf
11. Weybourne_supp.pdf