Reviewer #2:

The paper is much improved and the hygroscopicity distributions in Figures 2b and 4b are quite nice. Since the manuscript was uploaded in place of the supplementary material, I am unable to evaluate the supplementary material for this paper.

I have only the following technical corrections to suggest:

1) In the instrumentation section, since D_90 is used to denote diameter at 90%RH, using D_0 suggests diameter at 0%RH, which is not realistic. I suggest using the convention adopted in Figure 1-- D/D_0.

2) The sentence "...identified at the site during (Crippa et al., 2014) on Pg. 13, Line 1 is unfinished.

3) The kappa axis in Figures 1, 2a, and 4a do not look correct. Shouldn't kappa=0 when GF=1 as in Figure 3? I realize that negative kappas are non-sensical, but it can be noted in the text that these values are as such and are due to uncertainties associated with the DMA transfer functions.

Editor comments

p. 2, l. 3: Either 'Aerosol …displays..' or 'Aerosols …display…'

p. 7, l. 27: Add charges to the ions: NO_3^-, SO_4^{2-} and NH_4^+

p. 8, l. 3: The terpenes themselves are gases. It should be 'SOA formed from the terpenes…'

p. 11, l. 22: the authors did…

p. 13, l. 1: Did Asmi et al. really measure 'cloud activation' at pdD? Or did they characterize CCN properties?

p. 13, l. 18: Do you mean 'ammonium nitrate and/or other nitrates'?

p. 15, l. 21: Put years into parentheses.

p. 16, l. 19: Air masses are not hygroscopic

p. 17, l. 18: 'Kreidenweis' misspelled

p. 18, l. 29: The hyphens are confusing. Maybe better: …essential for comparisons of in-situ to remote sensing data.

Editor comment, following up on Reviewer#2's comment 3) above: I agree that the scaling of GF and kappa in the mentioned figures looks odd (it seems correct in Figure 5). According to your Equation (1), kappa = 0 if GF = 1.