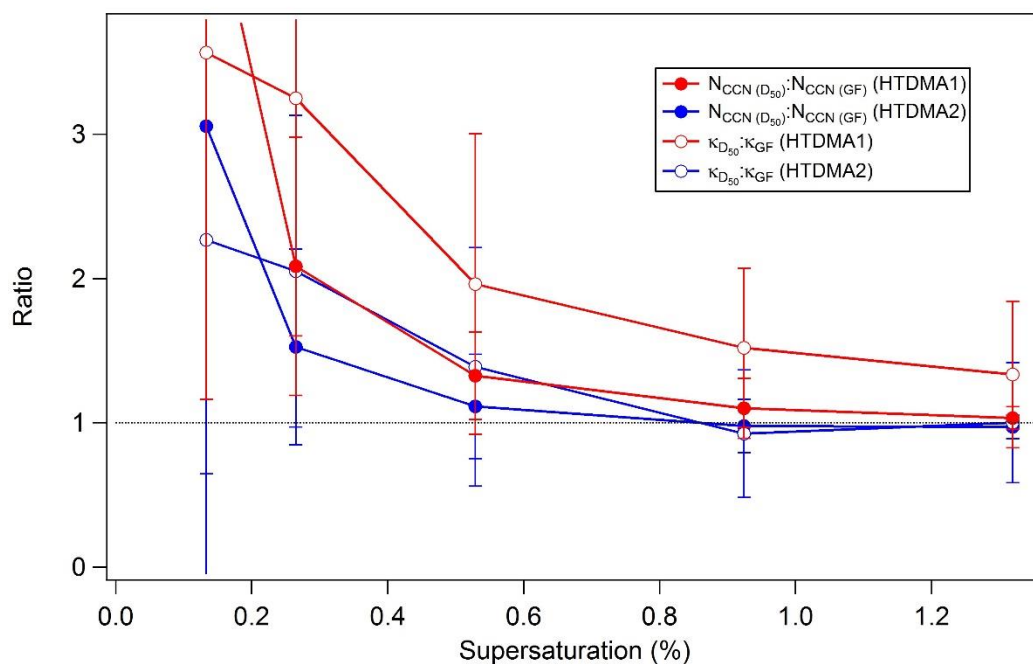


**Fig. S1.** Ratios of mean  $D_{50}$  and GF derived  $N_{CCN}$  and  $\kappa$  values as a function of  $S_{set}$  for the Chilbolton measurements, using original data (blue) and adjusted dry diameters (red). Error bars represent one standard deviation. The shaded areas represent the spread of values due to differing HTDMA calibrations.



**Fig S2.** Ratios of mean  $D_{50}$  and GF derived (a)  $N_{CCN}$  and (b)  $\kappa$  values as a function of  $S_{set}$  for each HTDMA, run side-by-side with a single CCNc, sampling ambient air in Manchester. Error bars represent one standard deviation.