*Supplement of*:

**Quantifying particle-to-particle heterogeneity in aerosol hygroscopicity**

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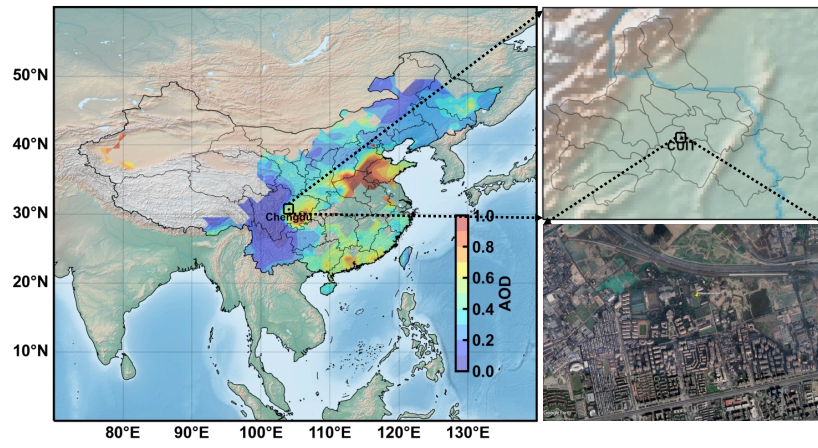
**Figure S1.** Location of the observation site. The contour represents the average AOD in January 2019.
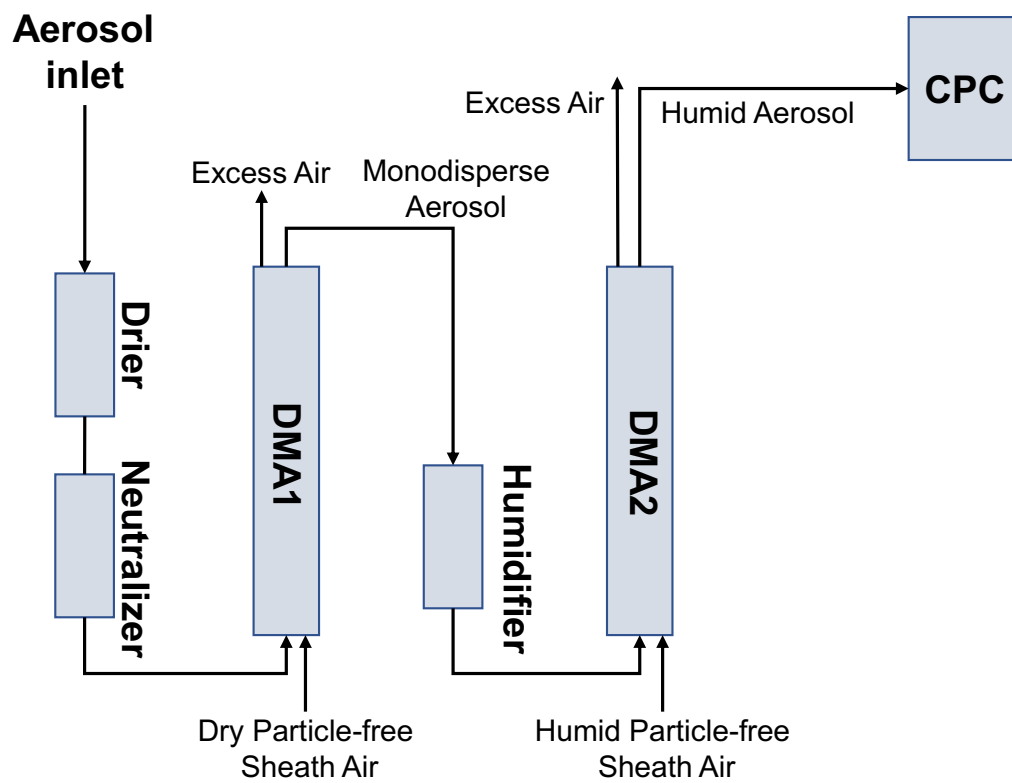
**Figure S2.** Schematic structure of the HTDMA
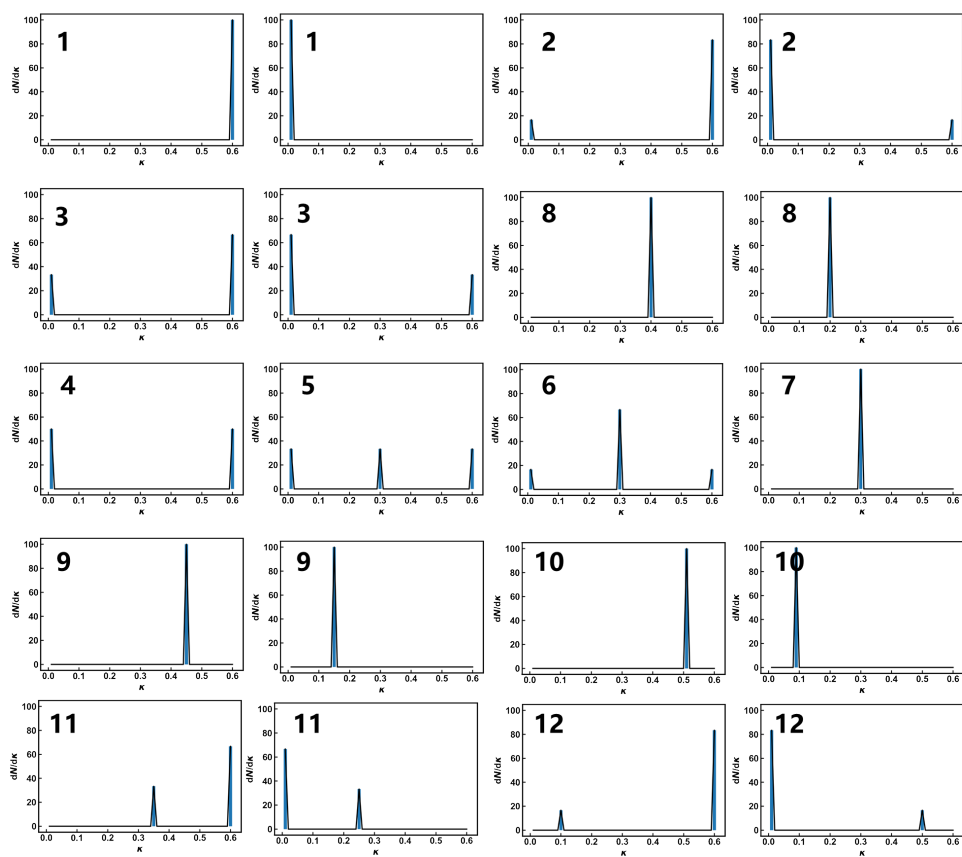
**Figure S3.** $\kappa$-PDFs for the 12 populations in the mixing state diagram.