

Figure S1. Self-coagulation coefficient of particles.

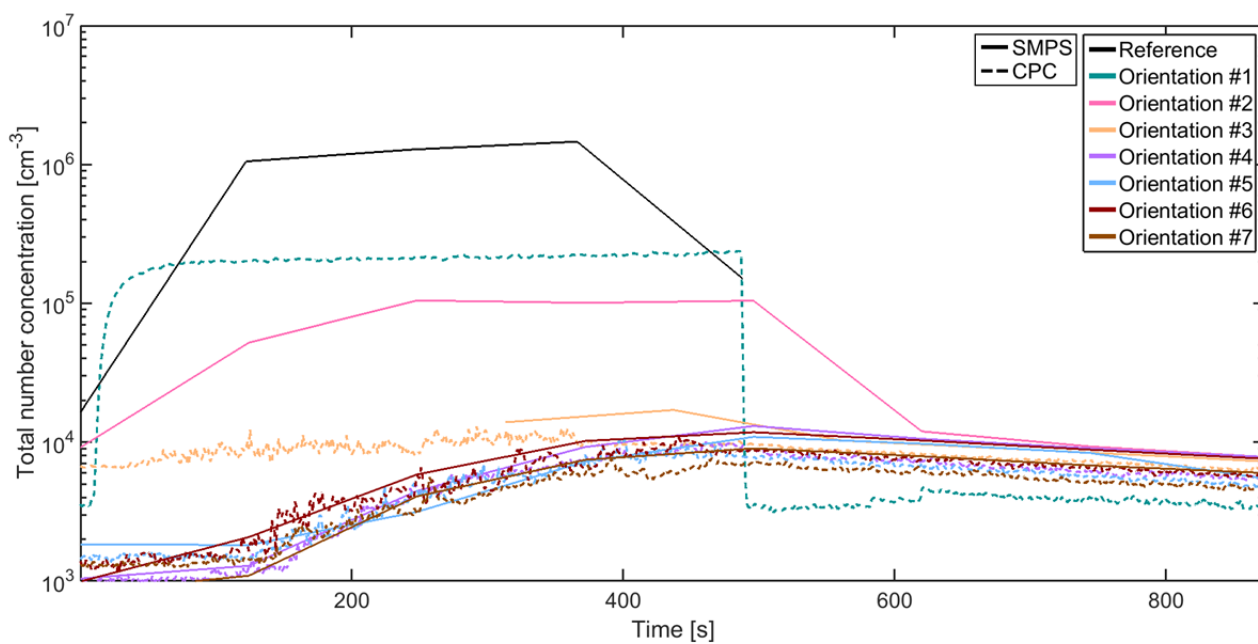


Figure S2. Total number concentrations of the reference concentrations and as measured in the source position in orientations #1 to #7 using SMPS and CPC. Different orientations and instruments are noted in colours and line styles, respectively.

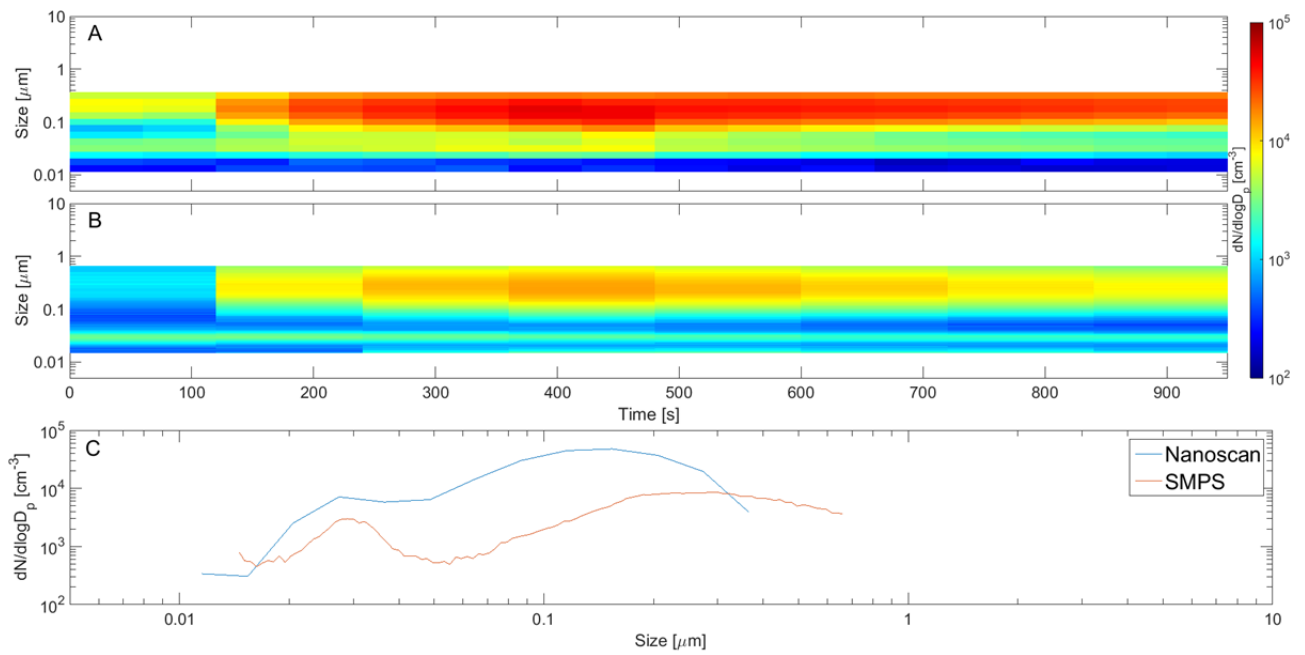


Figure S3. Measured size distributions in the chamber for (A) the nanoscans, averaged from NF and FF1, (B) SMPS in FF2, and (C) size distributions at $t = 400$ s.

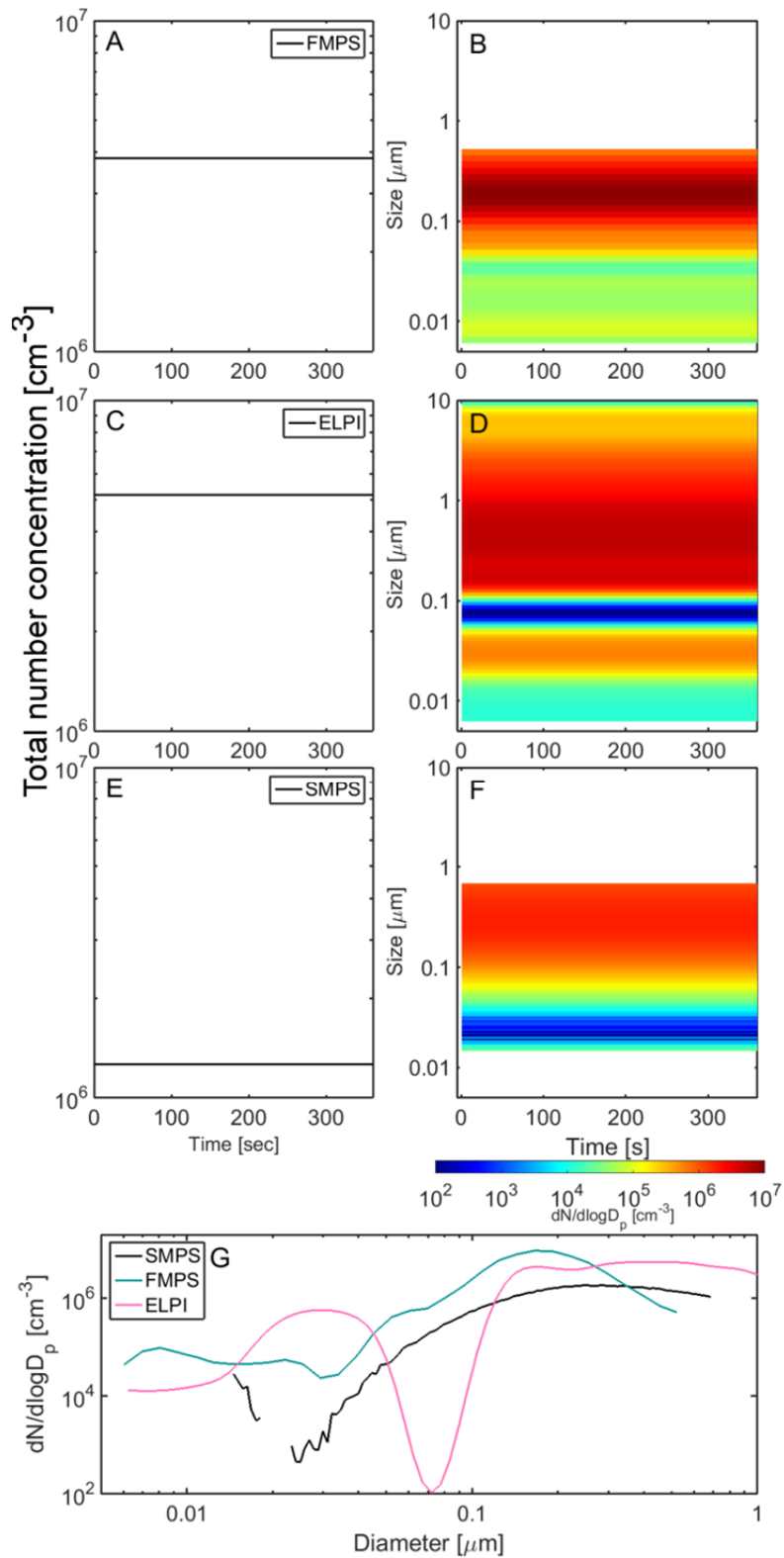


Figure S4. Total number concentrations and particle size distribution used in the constructed reference source as used in the model based on the concentrations measured by the FMPS (A and B), ELPI (C and D), and SMPS (E and F). (G) shows the size distributions at any single time point.

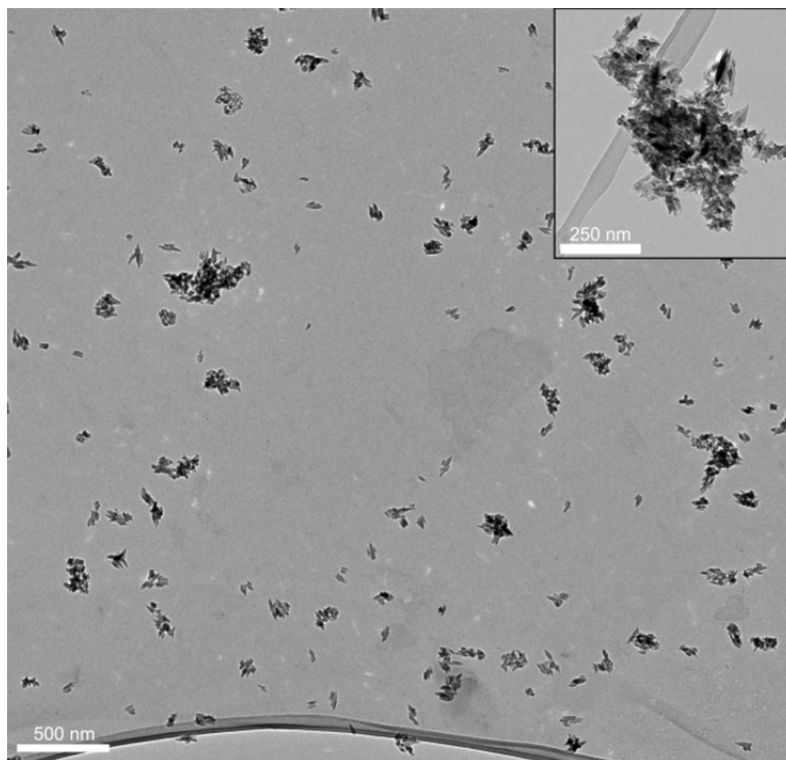


Figure S5. TEM micrograph of collected particles in FF1. The insert shows detailed of a single agglomerate.