

Figure S1 A) Temporal variations of PN size distribution (5.5 – 350 nm), trace gases (SO_2 , NO, CO and O_3) and meteorological conditions (solar radiation, T, RH and wind) during the NPF events in October/ November 2010; **B)** Average diurnal variations of particle number size distribution in NPF events and non-NPF events.

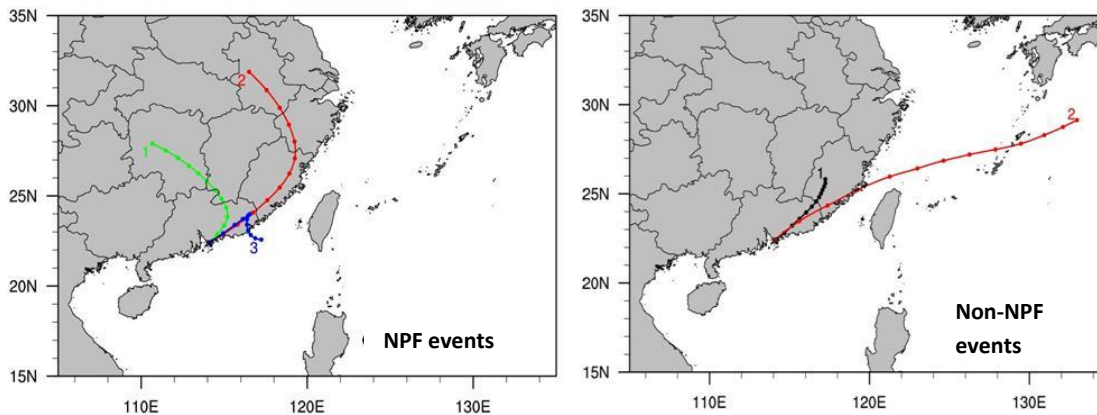


Figure S2 Back trajectories for TMS at the 1000 m height level on NPF event days and non-NPF event days

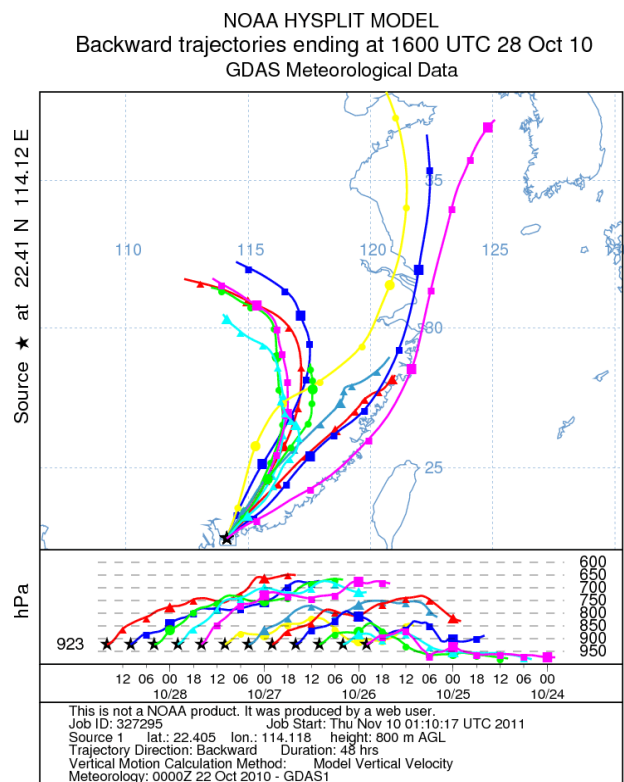


Figure S3 72h back-trajectories calculated during the nucleation mode particle formation event on 28 October, 2010 at TMS.

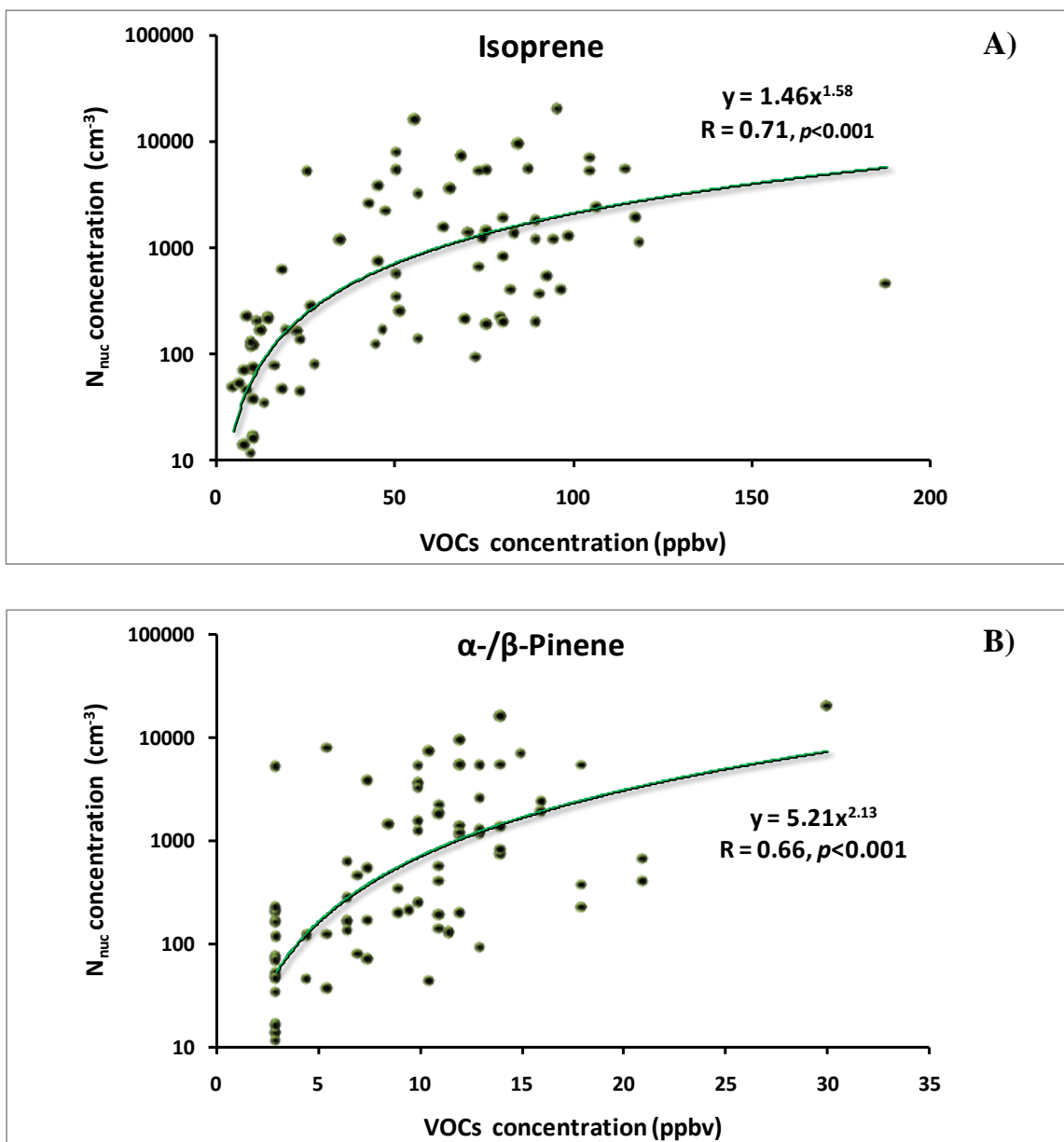


Figure S4 Power-law relationships between concentrations of the measured BVOCs, i.e. **A)** isoprene and **B)** α -/ β -pinene and N_{nuc} during all NPF events. The power exponent, correlation coefficient and p -value between measured BVOCs and N_{nuc} are also shown in the fitted lines.