Supplement of Atmos. Chem. Phys., 23, 2183–2198, 2023
https://doi.org/10.5194/acp-23-2183-2023-supplement

Atmospheric Chemistry and Physics
Open Access

Supplement of

Collective geographical ecoregions and precursor sources driving Arctic new particle formation

James Brean et al.

Correspondence to: Manuel Dall'Osto (dallosto@icm.csic.es) and James Brean (j.brean@bham.ac.uk)

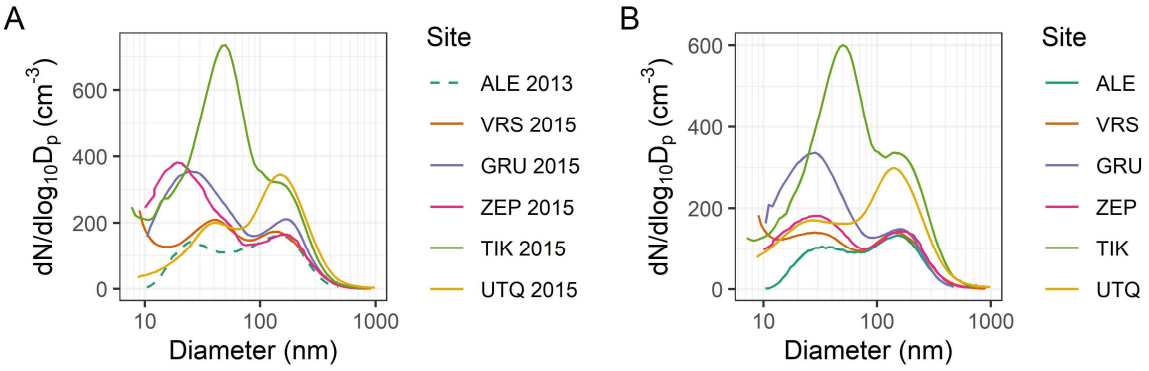

Figure S1: Average size distributions for (A) the months in 2015 with data overlap. ALE shows the data for the equivalent months in 2013, (B) shows the average size distribution for each site for all data.

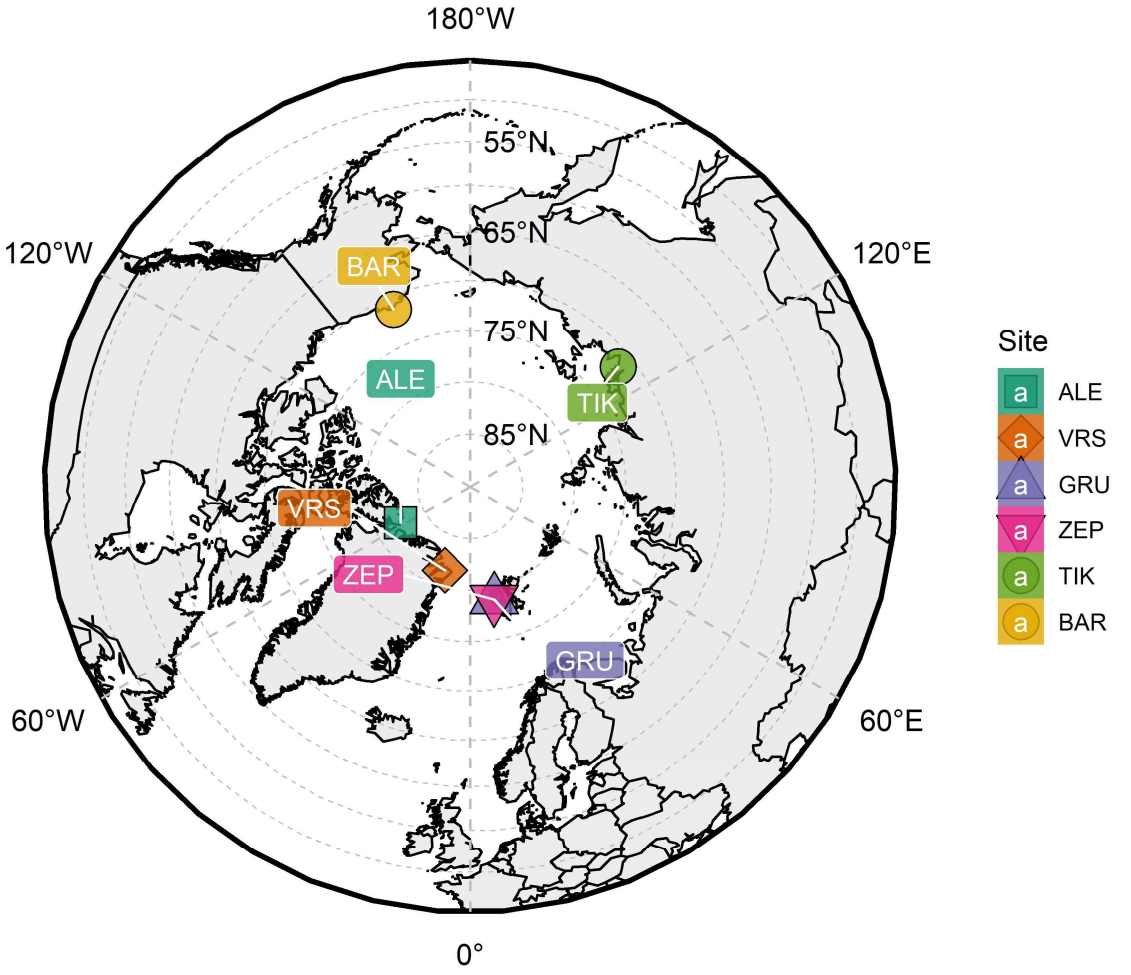

Figure S2: Location of each of the Arctic measurement sites

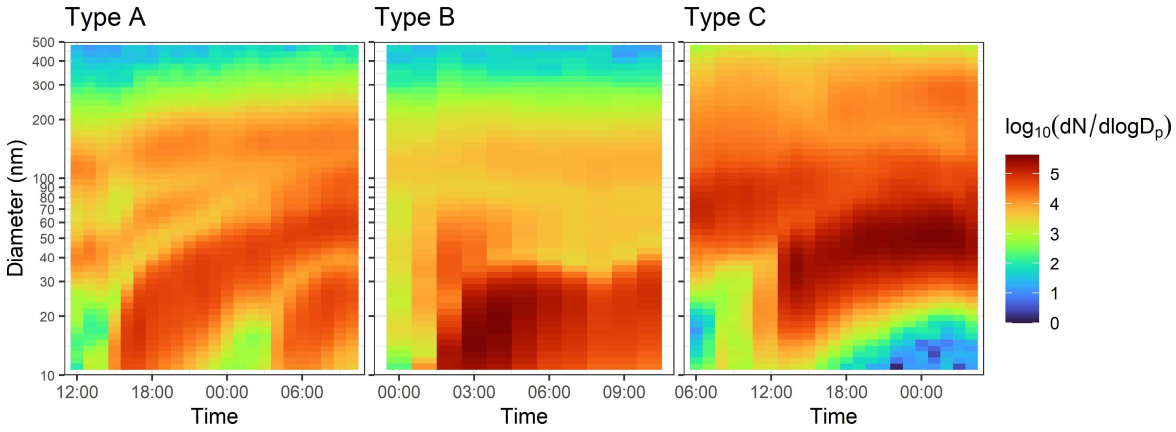

Figure S3: Example type A, type B, and type C new particle formation events at the TIK site

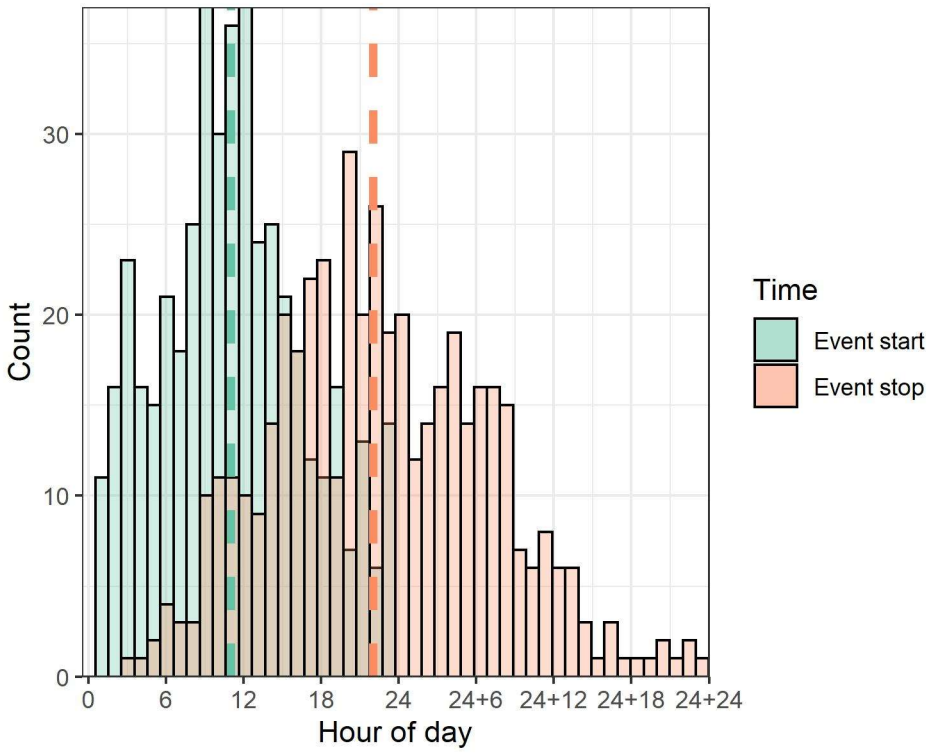

Figure S4: Average hour of day for the beginning/end of measured NPF event. Dashed lines represent median start and stop times respectively. Labels stating 24+X represent events that continue past the 24th hour of the day on which the event begins. Time is in local time for each site.

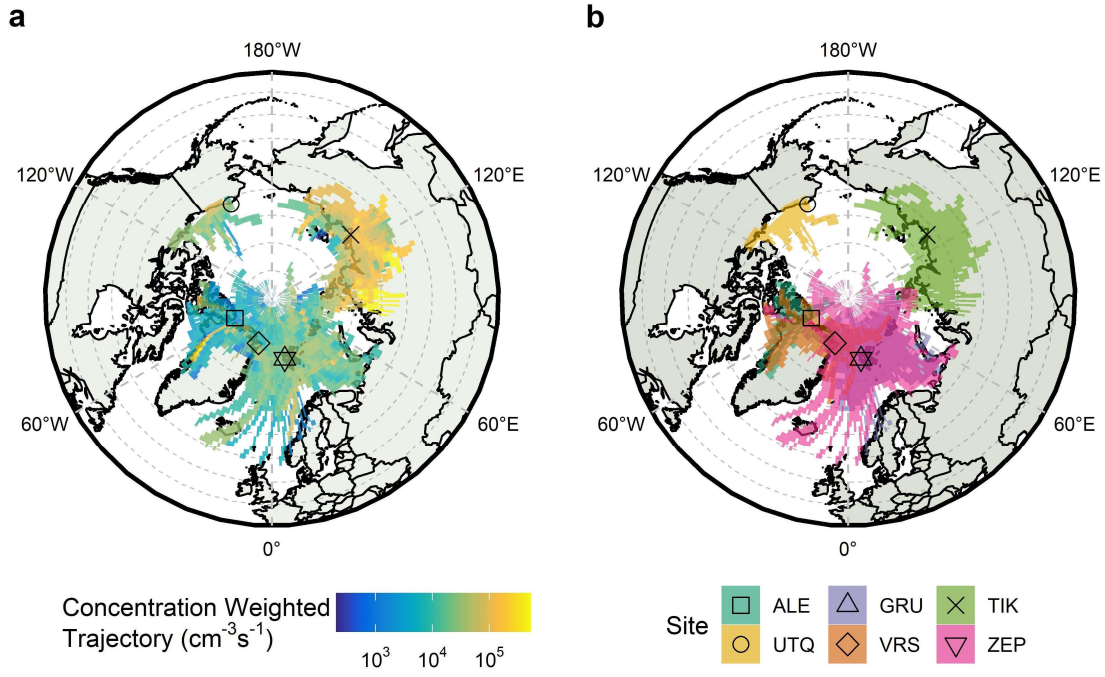

Figure S5: 72-hour HYSPLIT back trajectories during NPF events (a) weighted by vapour source rate of equivalent sulphuric acid driving particle growth at the arrival site, and (b) colored by the site at which the NPF event occurred. Individual maps in Figure S5.