

The particle number size distributions measured on three research stations are given in Fig. S1. We can find that the evolution of the particle number size distributions during the NPF events at Goldlauter and Schmücke are very similar, and quite different from that at Gehlberg. The NPF event at Gehlberg is relatively weak and started with a larger size of newly formed particles. Next step, we will investigate the meteorological parameters at three research stations.

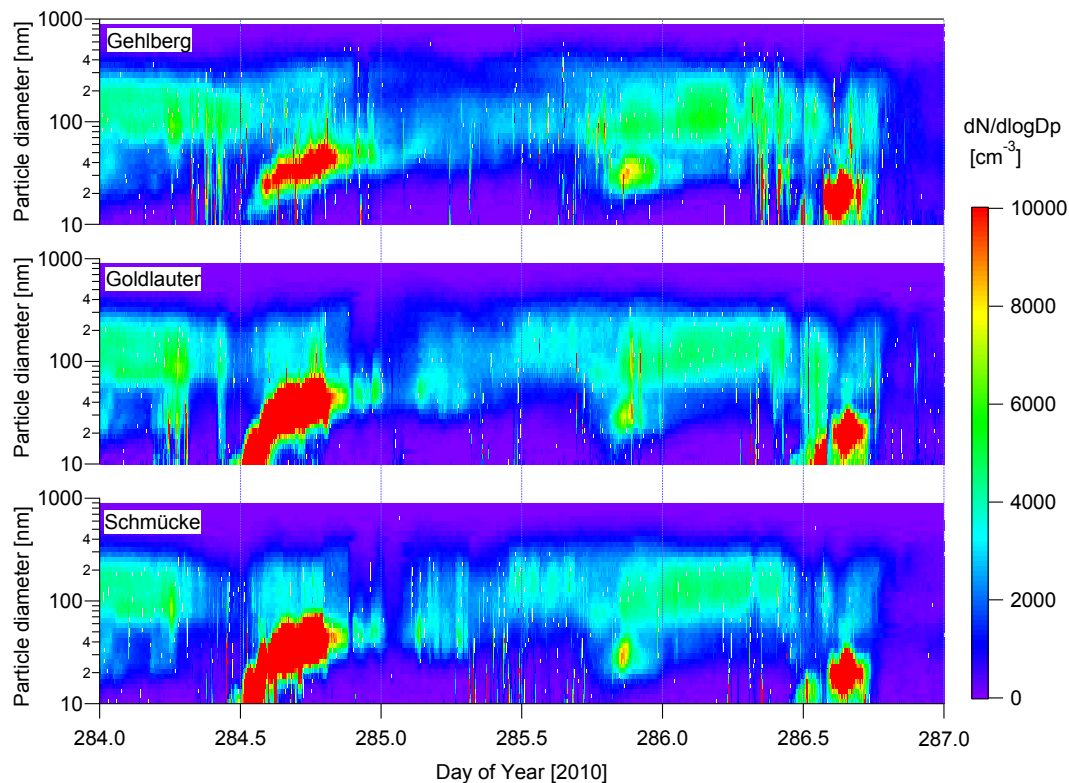


Fig. S1: The particle number size distributions on three research stations.

The relative humidity (RH) on October 14 and 12, 2010 are presented in Fig. S2. One can see that the RH at Gehlberg station is 90%, which is much higher than that on other two stations. It could be foggy at Gehlberg. The fog is visible at Gehlberg station, as photo shown in below. Therefore, we will only consider the Goldlauter and Schmücke research stations.

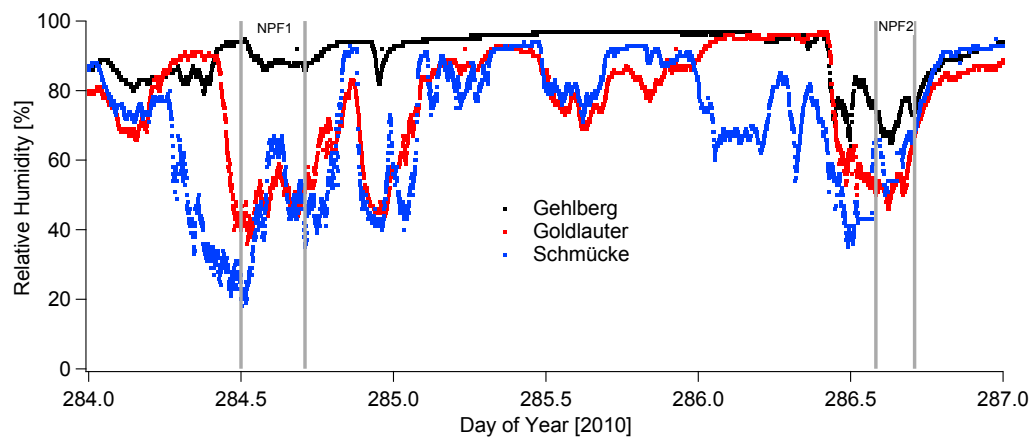


Fig. S2: RHs at three research stations.



The photo taken in Gehlberg station