Supplementary Materials: Aerosol from Biomass Combustion in Northern Europe: Influence of Meteorological Conditions and Air Mass History

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Figure S1. Examples of Na and K spectra before and after noise reduction treatment.
Figure S2. Illustrations of spectra dominated by different clusters shown in color map. Different sub-modes are included in cluster 2. The sampling period for each map is 6 hours.
Figure S3. Modeled (hourly average) primary PM$_{2.5}$ (PPM$_{2.5}$) from different regions and measured (6-h average) concentrations of K in Cluster 2. The upper panel shows modeled PPM$_{2.5}$ from WEU = Denmark, Germany, BeNeLux and France (orange line); NOR = Norway (red); BRI = UK and Ireland (blue); SHIPS = international shipping (turquoise). The lower panel shows modeled PPM$_{2.5}$ from EEU = Russia, Belarus, the Baltic states, Finland and Ukraine (blue line); PCS = Poland, Czechia and Slovakia (red); Other = all other non-Swedish regions (mainly central and southern Europe) (orange), and modeled PPM from fossil fuel sources in Sweden (SE PPM-ff, yellow line). The measured K concentration in Cluster 2 is shown in both panels (black line). Units, model results: µg m$^{-3}$; measurements: ng K m$^{-3}$.