Supplementary information of

Decadal Transition of Summertime PM₂.₅-O₃ Coupling and Secondary Organic Aerosol Dominance in Northwest China

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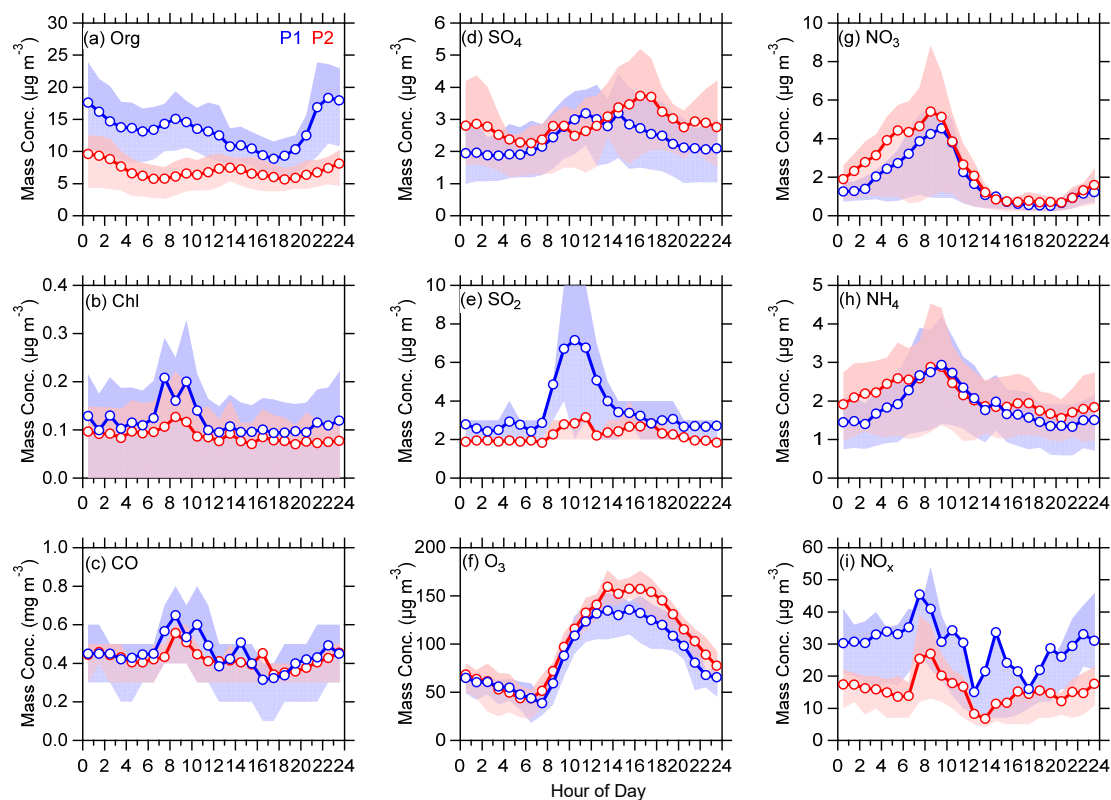
Figure S1: Diurnal variations of the chemical compositions of NR-PM$_{2.5}$ (Org, SO$_4$, NO$_3$, NH$_4$, Chl) and gaseous species (SO$_2$, CO, O$_3$, NOx) during P1 and P2, respectively. The circles indicate the mean values, and the shaded areas represent the 75th and 25th percentiles.
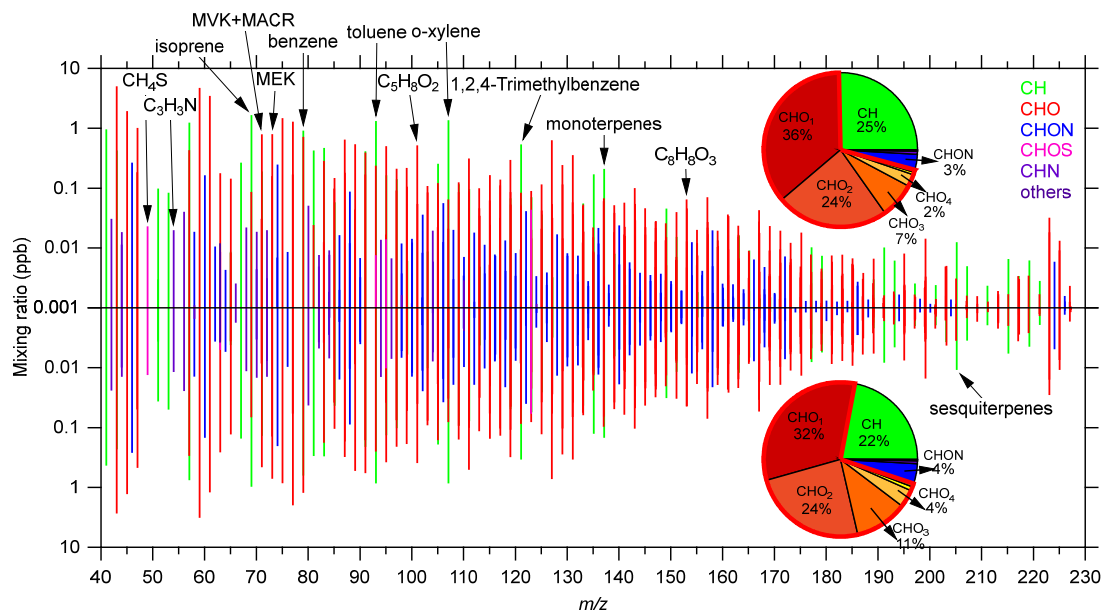
Figure S2: Average mass spectrum of Vocus PTR-MS during P1 (upper panel) and P2 (lower panel). The pie charts refer to the mass contributions of different categories.
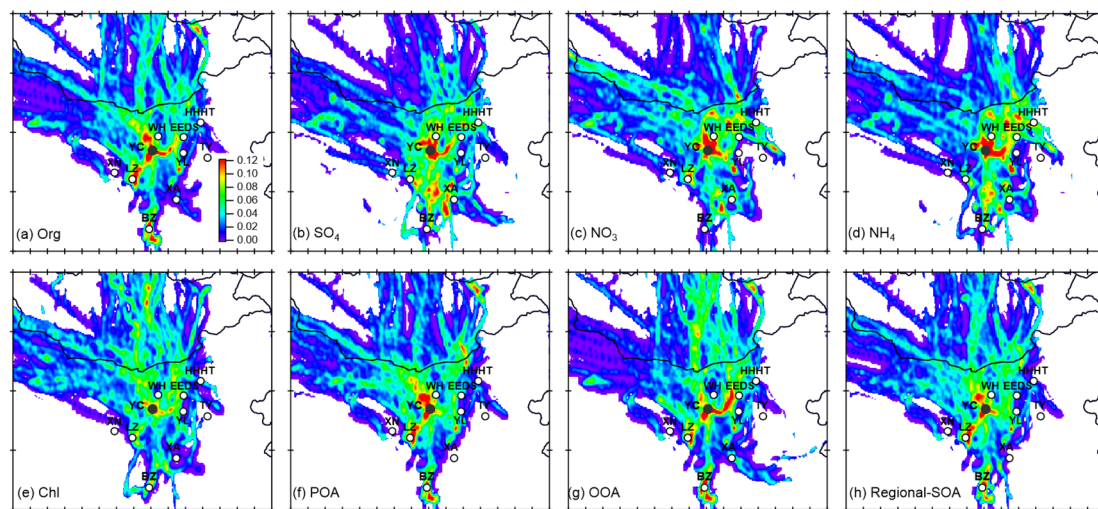
Figure S3: Potential source contribution function of NR-PM$_{2.5}$ compositions and OA factors during this campaign in Ningxia. The color scales inficate the values of PSCF. The city marked as a solid circle in each panle is Yinchuan (YL), and hollow circles refer to Xi'an (XA), Lanzhou (LZ), Xining (XN), Taiyuan (TY), WH (Wuhai), Yulin (YL), Eerdos (EEDS) and Hohhot (HHHT).