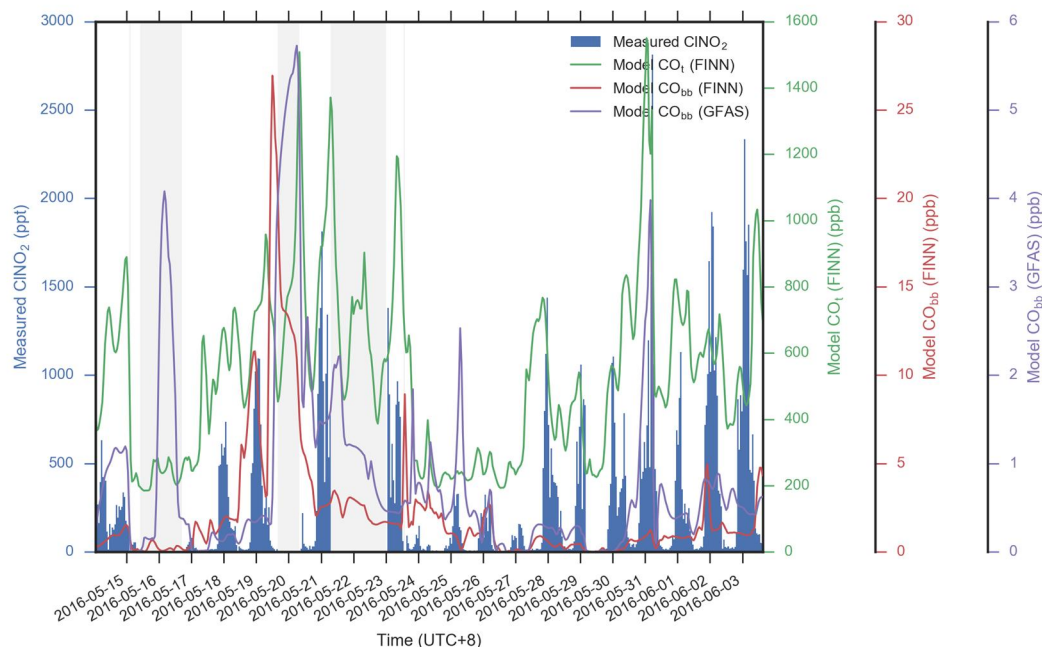
1 **Supplementary information for: Chlorine oxidation of VOCs at a semi-rural site in**

2 **Beijing: Significant chlorine liberation from $ClNO_2$ and subsequent gas and particle**

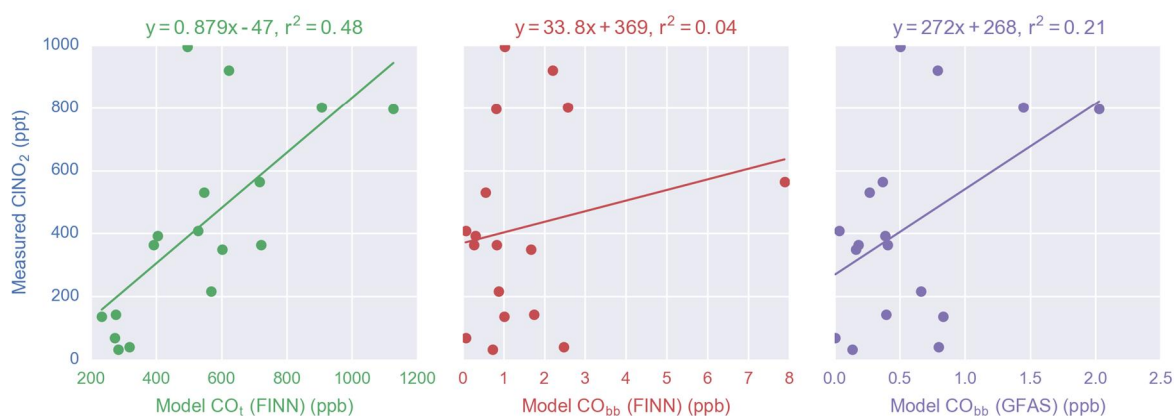
3 **phase Cl-VOC production**

4

5

6 **Figure S1. Time series of measured $ClNO_2$ concentrations, modelled CO_t concentrations,**

7 **and modelled CO_{bb} at the Changping site. CO_{bb} is shown for both the model using the**

8 **FINN database and the GFAS database. Periods with missing measurement data are**

9 **shown in grey.**

10

11 **Figure S2. Scatter plots of night-time averages of $ClNO_2$ against corresponding averages**

12 **of CO_t, CO_{bb} in the FINN model, and CO_{bb} in the GFAS model. Linear regressions for**

1   **each of the comparisons gave the following r2 results: CO_t 0.48, CO_{bb} FINN 0.04, and**

2   **CO_{bb} GFAS 0.21.**

3