## **Supplementary Material**

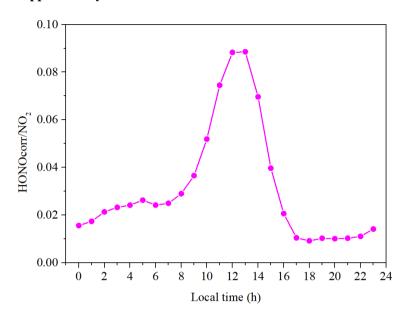


Figure S1: Diurnal variations of HONO<sub>corr</sub>/NO<sub>2</sub>.

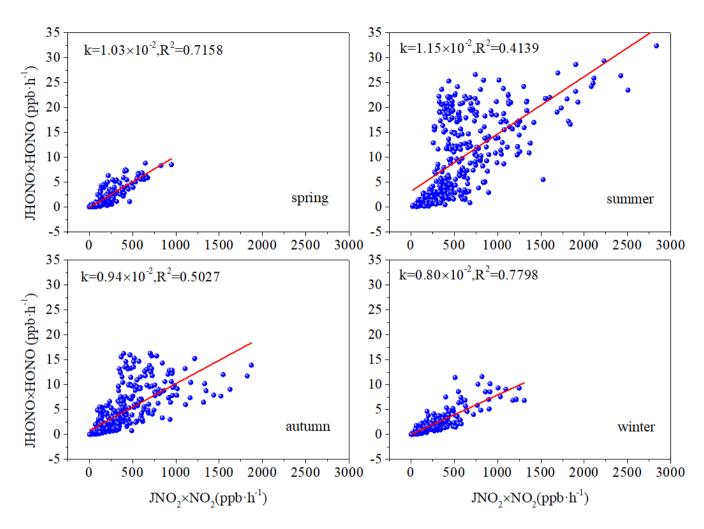


Figure S2: Correlations between  $J(HONO) \times HONO$  and  $J(NO_2) \times NO_2$ .

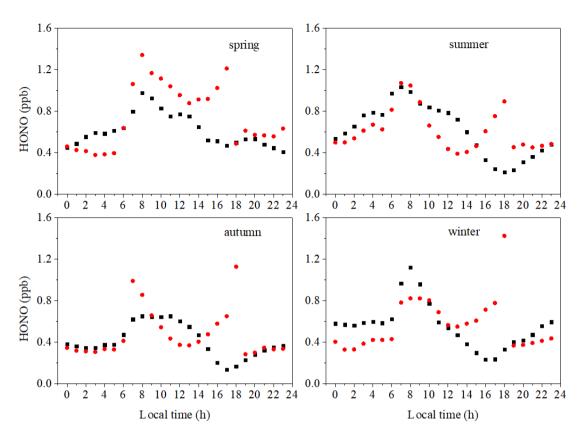
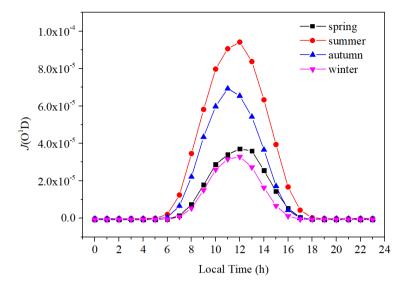


Figure S3: Diurnal profile of the measured values of HONO and the value estimated using the parameterized formula.



10 Figure S4: Diurnal variations of  $J(O^1D)$ .

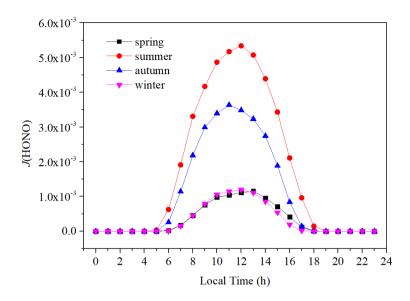


Figure S5: Diurnal variations of J(HONO).