Supplementary Materials:

**Fig. S1.** The location of the observation site.

**Fig. S2** (a) The $Q_{true}/Q_{expected}$ ratios in different solutions; (b) the $Q_{true}/Q_{expected}$ ratio for different Fpeak value solutions.

**Fig. S3.** Diurnal variations of O$_3$, NO$_x$, and VOCs during the observation period.

**Fig. S4** CPF plots for the seven factors resolved by the multiple PMF methods.

**Fig. S5.** Response of the P(O$_3$) to different AVOCs and NO$_x$ reduction percentages.
Fig. S1. The location of the observation site.
Fig. S2. (a) The $Q_{\text{true}}/Q_{\text{expected}}$ ratios in different solutions; (b) the $Q_{\text{true}}/Q_{\text{expected}}$ ratio for different $F_{\text{peak}}$ value solutions.
Fig. S3. Diurnal variations of O$_3$, NO$_x$, and VOCs during the observation period.
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