Widespread and Persistent Ozone Pollution in Eastern China

Guohui Li\textsuperscript{1*}, Naifang Bei\textsuperscript{2}, Junji Cao\textsuperscript{1*}, Jiarui Wu\textsuperscript{1}, Xin Long\textsuperscript{1}, Tian Feng\textsuperscript{1,2}, Wenting Dai\textsuperscript{1}, Suixin Liu\textsuperscript{1}, Qiang Zhang\textsuperscript{3}, and Xuexi Tie\textsuperscript{1}

\textsuperscript{1}Key Lab of Aerosol Chemistry and Physics, SKLLQG, Institute of Earth Environment, Chinese Academy of Sciences, Xi’an, China
\textsuperscript{2}School of Human Settlements and Civil Engineering, Xi’an Jiaotong University, Xi’an, Shaanxi, China
\textsuperscript{3}Department of Environmental Sciences and Engineering, Tsinghua University, Beijing, China

*Correspondence to: Guohui Li (ligh@ieecas.cn) and Junji Cao (jjcao@ieecas.cn)
Supplementary Information Section

The supplementary information (SI) provides description about the NO$_2$ simulations.
Supplementary Figure Captions

SI-Figure 1 Defined four sections in Eastern China. 1) Northeast China (NEC): Heilongjiang, Jilin, Liaoning, and the east part of Inner Mongolia, 2) North China Plain and surrounding areas (NCPs): Beijing, Tianjin, Hebei, Shandong, Henan, Shanxi, and the north part of Jiangsu and Anhui, 3) YRD and surrounding areas (YRDs): the south part of Jiangsu and Anhui, Shanghai, Zhejiang, and Hubei, and 4) PRD and surrounding areas (PRDs): Fujian, Jiangxi, Hunan, Guangxi, and Guangdong.

SI-Figure 2 Pattern comparison of simulated vs. observed near-surface NO$_2$ at 08:00 BJT from 22 to 27 May 2015. Colored circles: NO$_2$ observations; color contour: NO$_2$ simulations; black arrows: simulated surface winds.

SI-Figure 3 Comparison of measured (black dots) and predicted (blue line) diurnal profiles of near-surface NO$_2$ averaged over all ambient monitoring stations in provinces of Eastern China from 22 to 28 May 2015.
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Figure 2 Continued.
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Figure 3 Continued.

(k) Anhui  $MB = 0.5 \mu g m^{-3} \quad IOA = 0.60$
NCPs + YRDs

(l) Jiangsu  $MB = 2.9 \mu g m^{-3} \quad IOA = 0.67$
NCPs + YRDs

(m) Shanghai  $MB = 0.2 \mu g m^{-3} \quad IOA = 0.39$
YRDs

(n) Zhejiang  $MB = 3.1 \mu g m^{-3} \quad IOA = 0.56$
YRDs

(o) Hubei  $MB = 2.4 \mu g m^{-3} \quad IOA = 0.74$
YRDs

(p) Hunan  $MB = 0.5 \mu g m^{-3} \quad IOA = 0.52$
PRDs

(q) Jiangxi  $MB = 3.6 \mu g m^{-3} \quad IOA = 0.53$
PRDs

(r) Fujian  $MB = -3.3 \mu g m^{-3} \quad IOA = 0.76$
PRDs

(s) Guangxi  $MB = 1.6 \mu g m^{-3} \quad IOA = 0.54$
PRDs

(t) Guangdong  $MB = -2.0 \mu g m^{-3} \quad IOA = 0.82$
PRDs