Supplement of Atmos. Chem. Phys., 20, 15617–15633, 2020
https://doi.org/10.5194/acp-20-15617-2020-supplement
© Author(s) 2020. This work is distributed under
the Creative Commons Attribution 4.0 License.

Supplement of

Exploring the drivers of the increased ozone production in Beijing in summertime during 2005–2016

Wenjie Wang et al.

Correspondence to: Xin Li (li_xin@pku.edu.cn)

The copyright of individual parts of the supplement might differ from the CC BY 4.0 License.
Figure S1. The trend of average MDA8 ozone in Changdao during 2013-2019. These data are acquired from “Blue book on prevention and control of atmospheric ozone pollution in China (in Chinese)” reported by Chinese Society of Environmental Sciences in 2020 (http://www.ep-serve.com/forepart/zxnr_index.do?oid=51478637&tid=26378242).
Figure S2. Trend of monthly afternoon (12:00-15:00) mean P(O₃) simulated by the chemical box model. Red dots: Only the gas-phase reactions are considered in the box model constrained by observed photolysis frequencies from 2006 for all eleven years. Blue dots: the box model as above, but constrained by the photolysis frequencies derived for each year without the changing aerosol uptake of HO₂ considered.
Figure S3. Diurnal variation of simulated P(O_3) in Beijing in August during 2006-2016. P(O_3)_j_\text{obs} represents ozone production rate under observed photolysis frequencies; P(O_3)_j_{\text{AOD}=0} represents ozone production rate under calculated photolysis frequencies when AOD is equal to 0.