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# Reduction in black carbon light absorption due to multi-pollutant emission control during APEC China 2014

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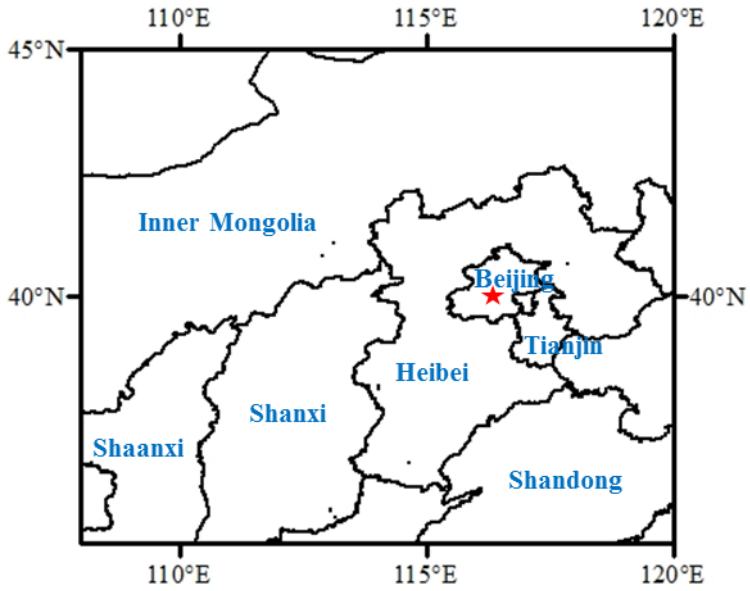


Figure S1. Location of the observation site (red star).

Figure S2 shows a similar distribution of effective emission intensity (EEI, defined by Lu et al. (2012)) of BC over the site during 3, 5 and 7 days, revealing that the BC transported to the site was mainly from emission within 3 days. For "APEC blue", the emission control measures were implement on November 3-12, 2014. Considering BC over the site mainly from emission within 3 days, the BC transported to the site during the pollution episode on November 3-5 were the mixtures of particles that were emitted before and during APEC. Similarly, the BC transported to the site during the pollution episode on November 13-16 were the mixtures of particles that were emitted during and after APEC. To clearly distinguish BC characteristics with and without emission control measures, we exclude this two periods (November 3-5 and 13-16, 2014) in this study.

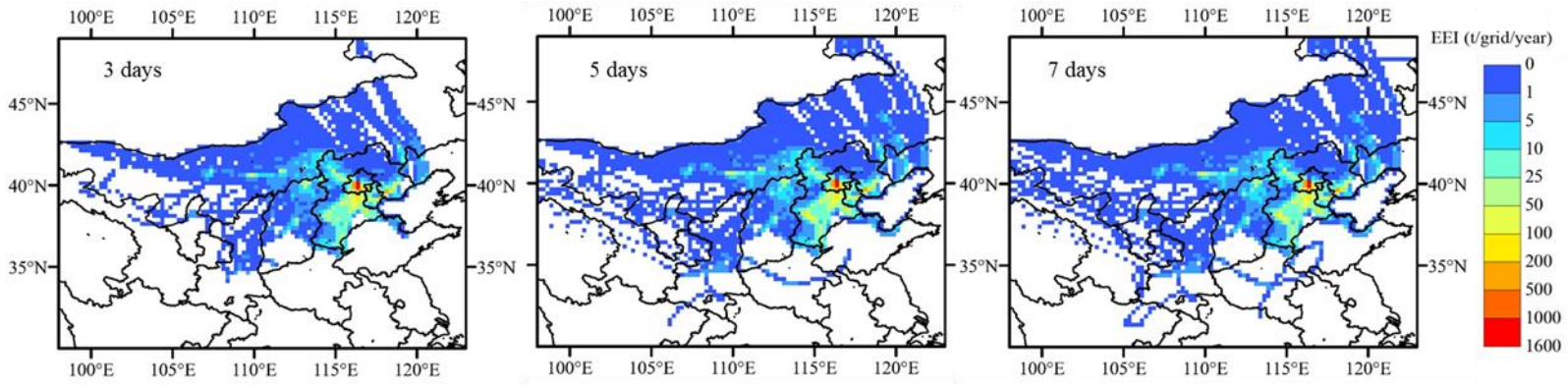


Figure S2. Spatial distribution (0.25°×0.25°) of the effective emission intensity (EEI, defined by Lu et al. (2012)) for BC transported to the site (40º00’17” N, 116º19’34” E) based on 3, 5 and 7 days back-trajectory. The EEI calculation was stated in our previous study (Zhang et al. 2018).

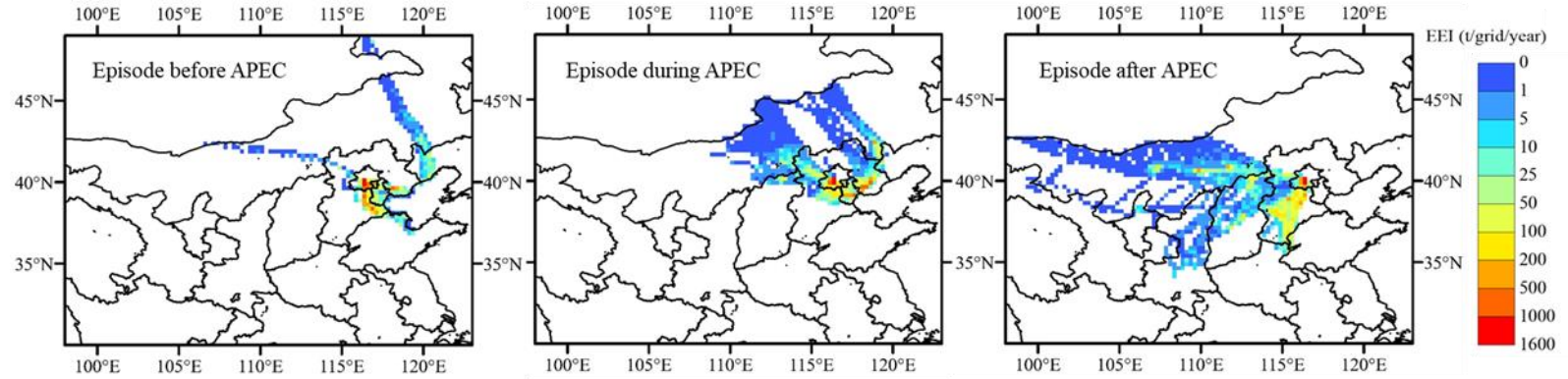


Figure S3. Spatial distribution (0.25°×0.25°) of effective emission intensity (EEI) for BC transported to the site (40º00’17” N, 116º19’34” E) for the pollution episodes before, during and after APEC. The EEI was obtained based on a novel back-trajectory analysis (Lu et al. 2012).

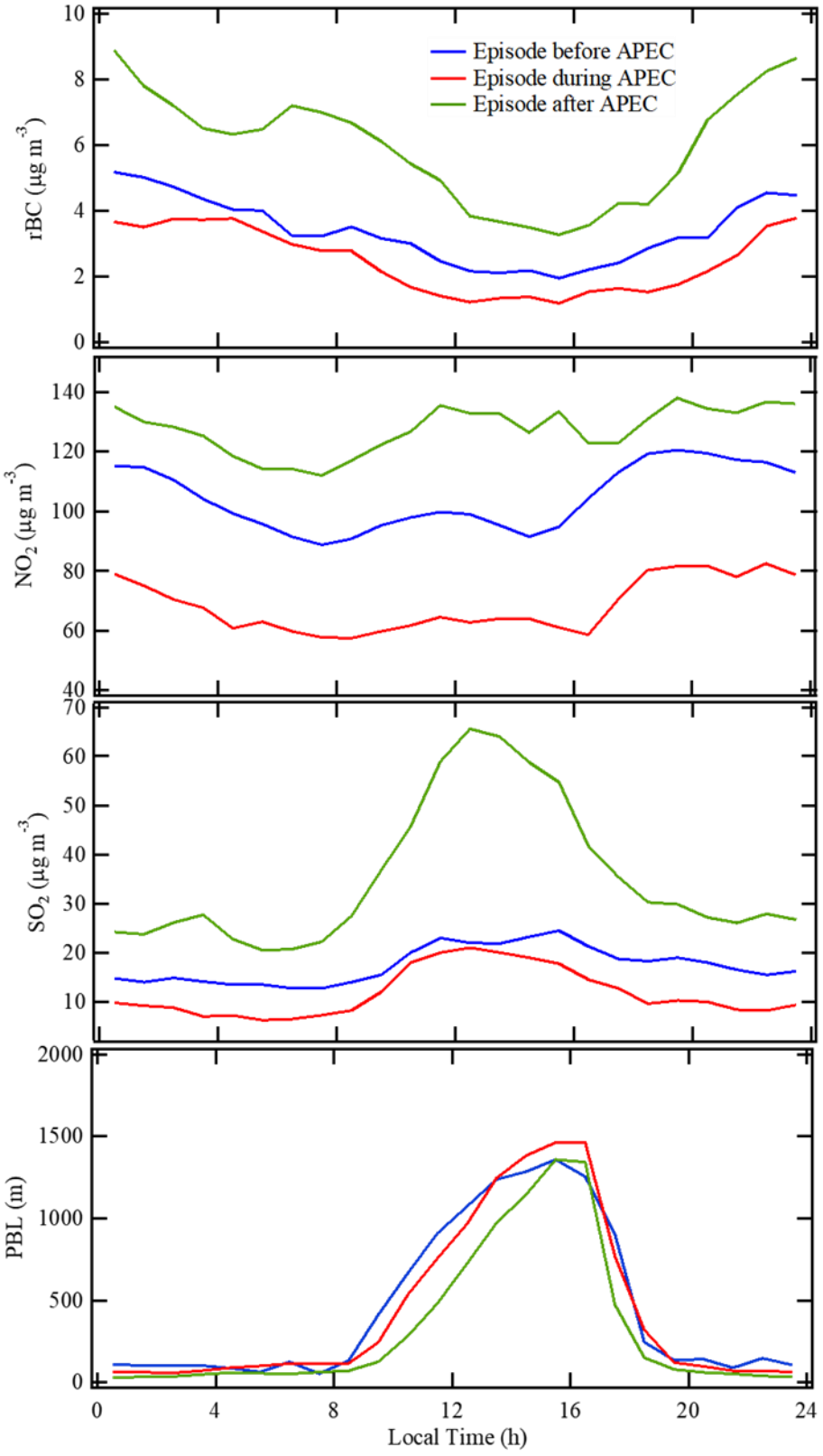


Figure S4. Diurnal variations of the rBC, $NO_2$ and $SO_2$ concentrations and the PBL for the pollution episodes before, during and after APEC.

## References

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