Atmospheric
Chemistry
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EGU

Supplement of

Significant reduction of PM$_{2.5}$ in eastern China due to regional-scale emission control: evidence from SORPES in 2011–2018

Aijun Ding et al.

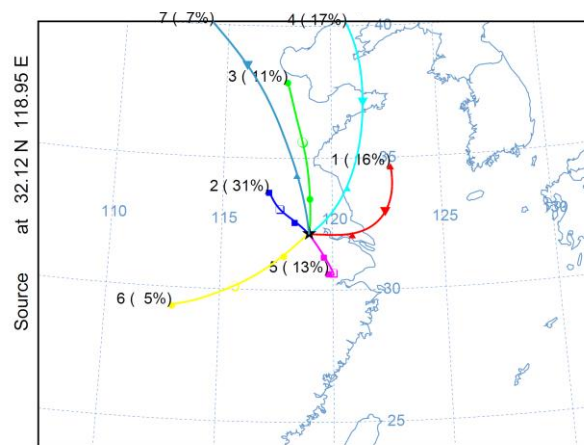*Correspondence to:* Aijun Ding (dingaj@nju.edu.cn)

Figure S1. Cluster analysis for back-trajectories at SORPES station calculated using the HYSPLIT model for NDJ (November, December January) from November 2013 to January 2018. Note: 36-hr backward trajectories are used here. Total 7 clusters are identified and the percentage of each cluster is shown in the averaged trajectories. All trajectories were calculated for the altitude of 100 m above the SORPES station and GDAS data was used to drive the model.
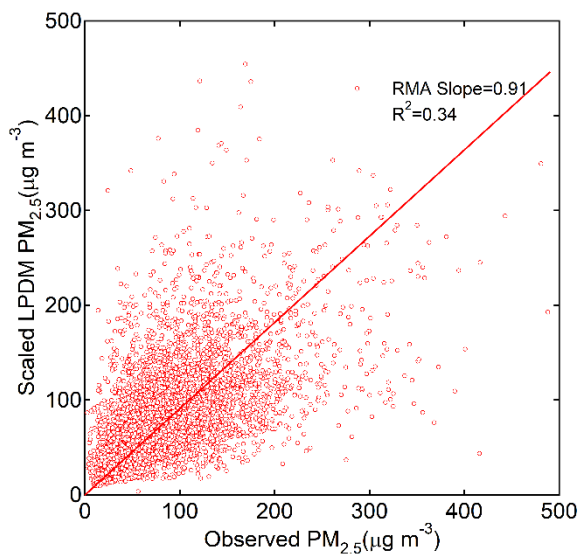

Figure S2. Scatter plot of scaled LPDM simulated $PM_{2.5}$ versus observations at the SORPES station for the period of November-January during 2013-2018. Note: Here the "scaled" means for each month the simulation result was adjusted to have the medium value matched with observation.

Table S1. Instrumentation, observational period and data coverage for main parameters measured at the SORPES station.

Parameter	Instruments	Resolution	Period	Data coverage
$PM_{2.5}$	Thermo Fisher Scientific SHARP 5030	5 min	August 2011-July 2018	97.8%
SO_2	Thermo Fisher Scientific TEI-43i	5 min	August 2011-July 2018	98.3%
NO_2, NO_x	Thermo Fisher Scientific TEI-42i	5min	August 2011-July 2018	93.9%
BC	Magee Scientific AE31	5min	May 2013-July 2018	91.9%
SO_4^{2-}, NO_3^-, NH_4^+, K^+ etc.	Metrohm, MARGA	1 hr	May-June 2012 May 2013-July 2018	83.7%