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Aerosol composition, oxidation properties, and sources in Beijing: results from the 2014 Asia-Pacific Economic Cooperation summit study

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TableS1. Summary of average meteorological parameters, mass concentrations of PM_1 Species and OA factors, and element ratios of OA for the entire study and each stage.

	Entire Case	E1	E2	E3	E4
Meteorological Parameters					
RH(%)	70.4	46.8	64.4	74.0	79.0
T(°C)	14.1	12.1	13.4	13.5	15.8
WS(m/s)	2.8	3.8	2.7	2.4	2.9
PM_1 Species (μg/m^3)					
Org	52.6	33.0	30.3	46.7	80.4
SO_4	25.5	3.4	7.7	19.2	47.0
NO_3	41.4	7.1	14.2	35.3	73.4
NH_4	18.3	4.7	7.6	15.1	31.6
Chl	6.5	7.4	8.4	6.3	6.1
BC	9.4	6.9	6.3	9.7	12.5
PM_1	153.7	62.5	74.5	132.3	251.0
OA (μg/m^3)					
COA1	7.9	12.1	5.8	9.6	9.2
COA2	3.3	3.0	1.7	3.5	5.0
HOA	5.8	6.6	6.4	7.0	4.8
BBOA	6.1	4.1	5.9	5.1	7.7
SV-OOA	9.7	6.2	5.5	6.4	15.8
LV-OOA	20.6	2.1	6.1	16.6	38.2
Element ratios					
O/C	0.46	0.25	0.37	0.43	0.57
O/C(SOA)	0.75	0.57	0.70	0.81	0.80
H/C	1.54	1.65	1.60	1.57	1.47
OM/OC	1.80	1.51	1.68	1.76	1.95

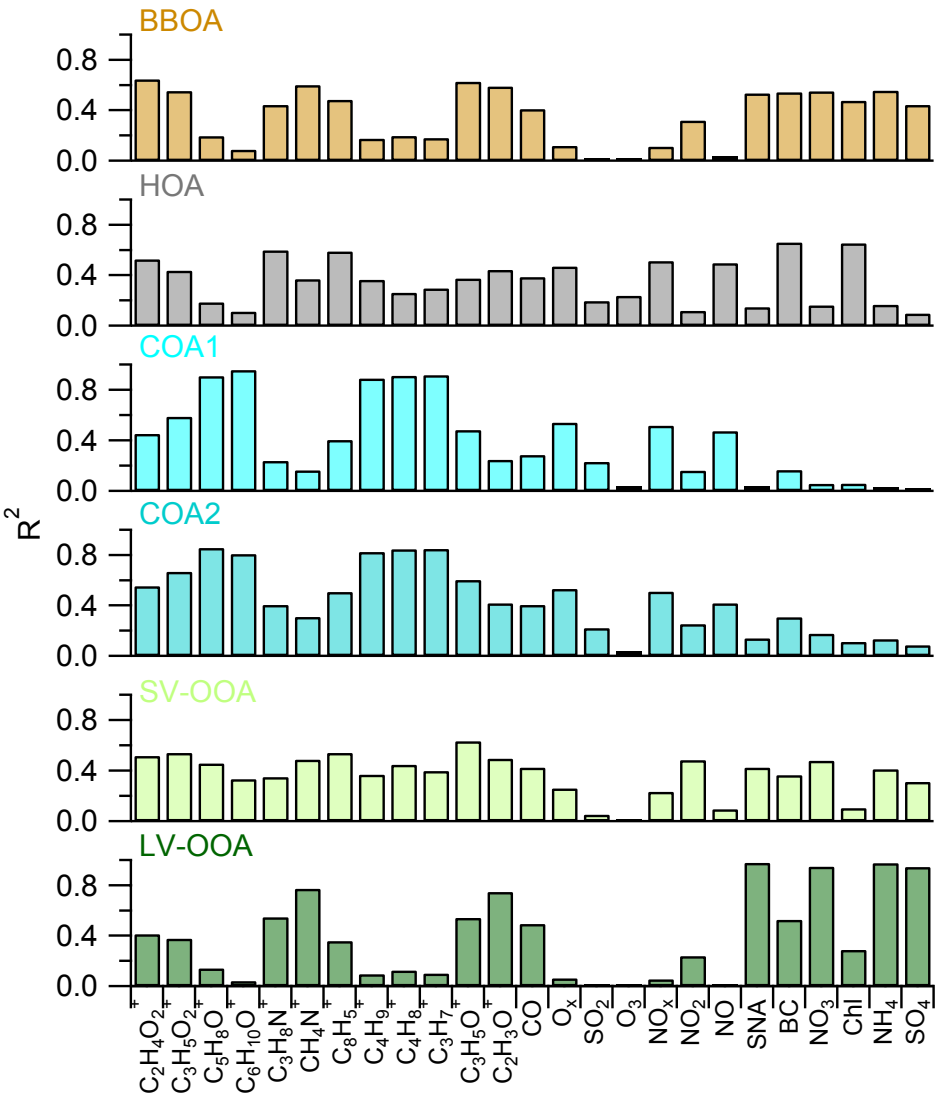

Figure S1. The correlation coefficients between OA factors and tracers before the Asia–Pacific Economic Cooperation (APEC) summit.

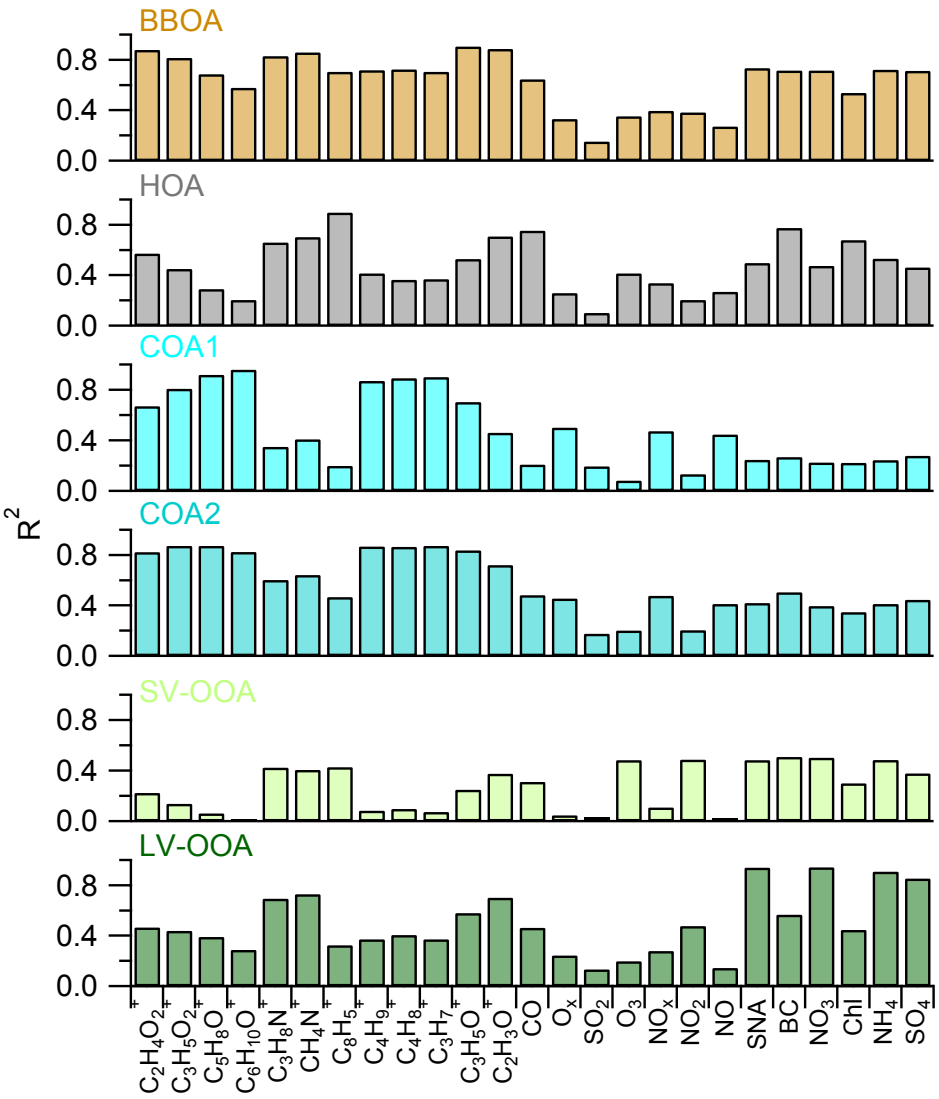

Figure S2. The correlation coefficients between OA factors and tracers during the Asia–Pacific Economic Cooperation (APEC) summit.

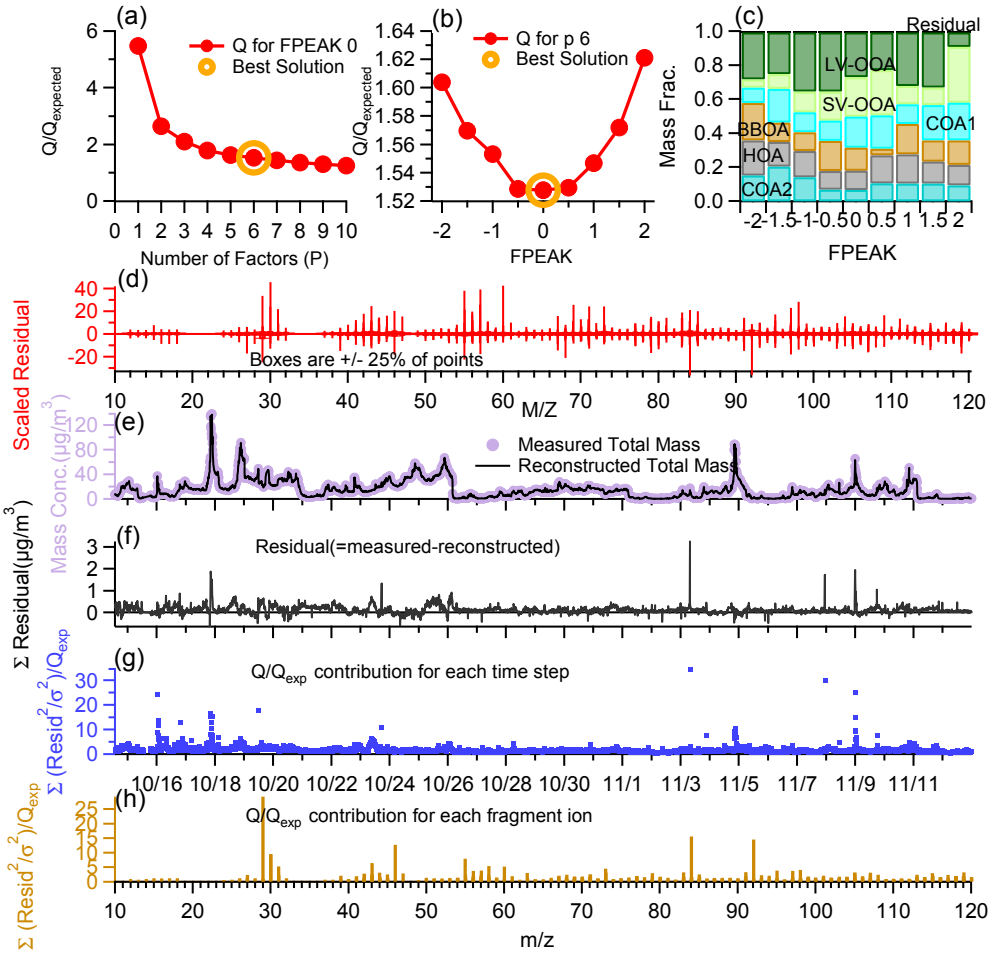

Figure S3. Summary of key diagnostic plots of the HR-AMS PMF results for 6-factor solution: (a) Q/Q_{exp} as a function of number of factors (P) selected for PMF modeling. For the 6-factor solution, (b) Q/Q_{exp} as a function of fPeak;(c) fractions of OA factors vs. fPeak, (d) the box and whiskers plot showing the distributions of scaled residuals for each *m/z*, (e) time series of the measured organic mass and the reconstructed organic mass (= HOA+BBOA+COA1+COA2+SV-OOA+LV-OOA), (f) variations of the residual (= measured − reconstructed) of the fit, (g) the Q/Q_{exp} for each point in time, and (h) the Q/Q_{exp} values for each *m/z*.

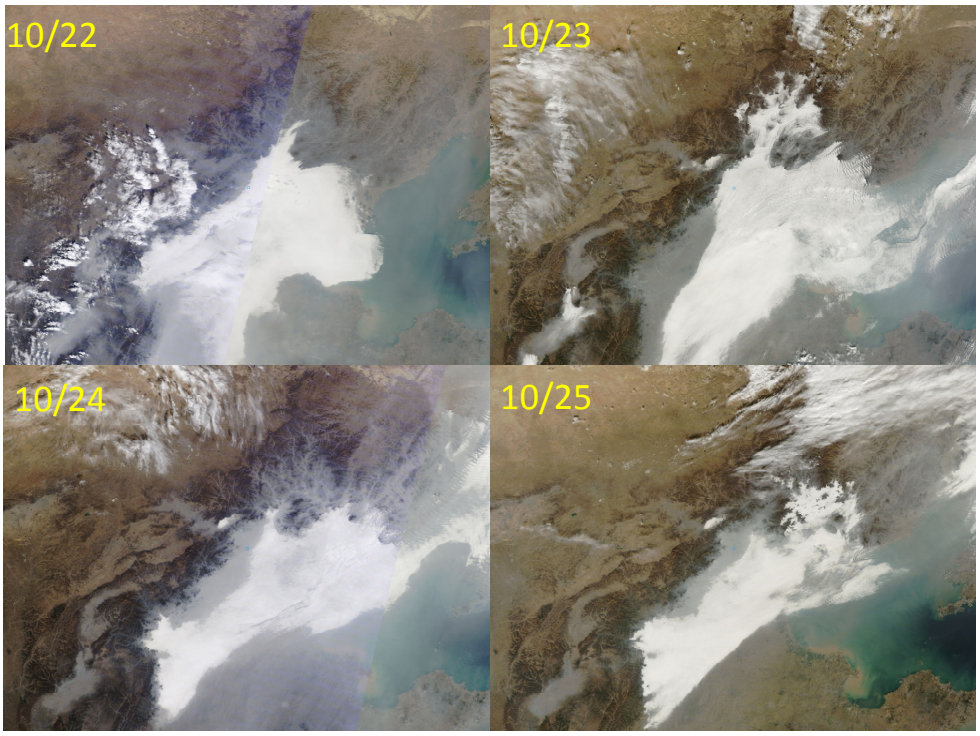

Figure S4. Terra MODIS true color image on October 22–24, 2014 (https://earthdata.nasa.gov/).

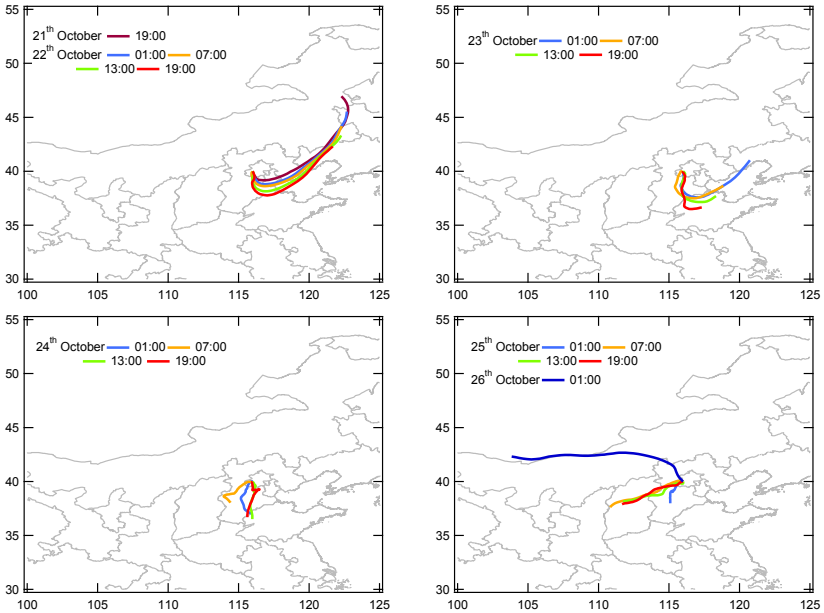

Figure S5. 48 h back trajectories arriving at Beijing between 19:00 on October 21 and 01:00 on October 26. The back trajectories at 100 m height were calculated every 6h using NOAA HYSPLIT 4 model.