Supplementary Information for Huang et al.

Table S-1. Summarization of PM_1 species concentrations during the campaign.

	Mean	1σ	Minimum	Median	Maximum
Sulfate	11.2	5.0	0.58	10.6	31.4
Ammonium	4.6	2.5	0.01	4.1	16.8
Nitrate	3.5	3.9	0.09	2.1	28.0
Chloride	0.38	0.50	＜D.L.	0.21	6.2
Organics	11.2	8.4	0.05	8.9	115
BC	2.2	1.4	0.05	2.0	9.8
PM_1	33.1	18.1	2.4	29.0	150

Table S-2. Description of PMF solutions obtained for the AMS dataset.

# Factors	Fpeak	Seed	$Q/Q_{expected}$	Solution Description
1	0	0	8.0	Too few factors. Large residuals at key m/z's and time periods.
2	0	0	6.5	Too few factors. Large residuals at key m/z's and time periods.
3	**0**	**0**	**5.16**	**Optimum number of factors (BBOA, LV-OOA and SV-OOA). Factor MS features compare well with the database MS. Good correlation with tracer species. Distinctive diurnal cycles for factors.**
4 to 8	0	0	4.8-4.0	Factor splitting, particularly in the OOAs, without new factors of O/C<0.2. When factors split unrealistic zeros are observed in factor time series. Some of the split factors have time series and MS that appear mixed.
3	3 to -3	0	5.19-5.16	In Fpeak range -1<0<1, factor MS and time series are almost identical. For larger Fpeak range, unreasonable zeros observed in time series and mass spectra.
3	0	0 to 250 in steps of 10	5.16	Factors trends and MS are almost identical for the entire seed range.

Fig. S-1. Comparison of HR-MS for some N-containing m/z's between at a typical non-biomass burning time and at a typical biomass burning time during the campaign.