

We added Figure 2 and modified other Figures as below:

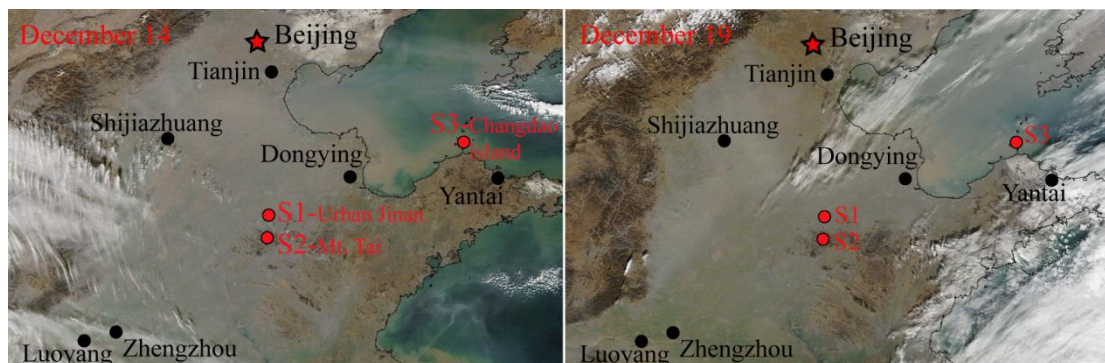


Figure 1. Regional haze layer covering the North China Plain: S1 (urban Jinan), S2 (Mt. Tai top), and S3 (Changdao island) sites. MODIS images on December 14 and 19 show grey haze layer during the light and moderate regional hazes over the NCP.

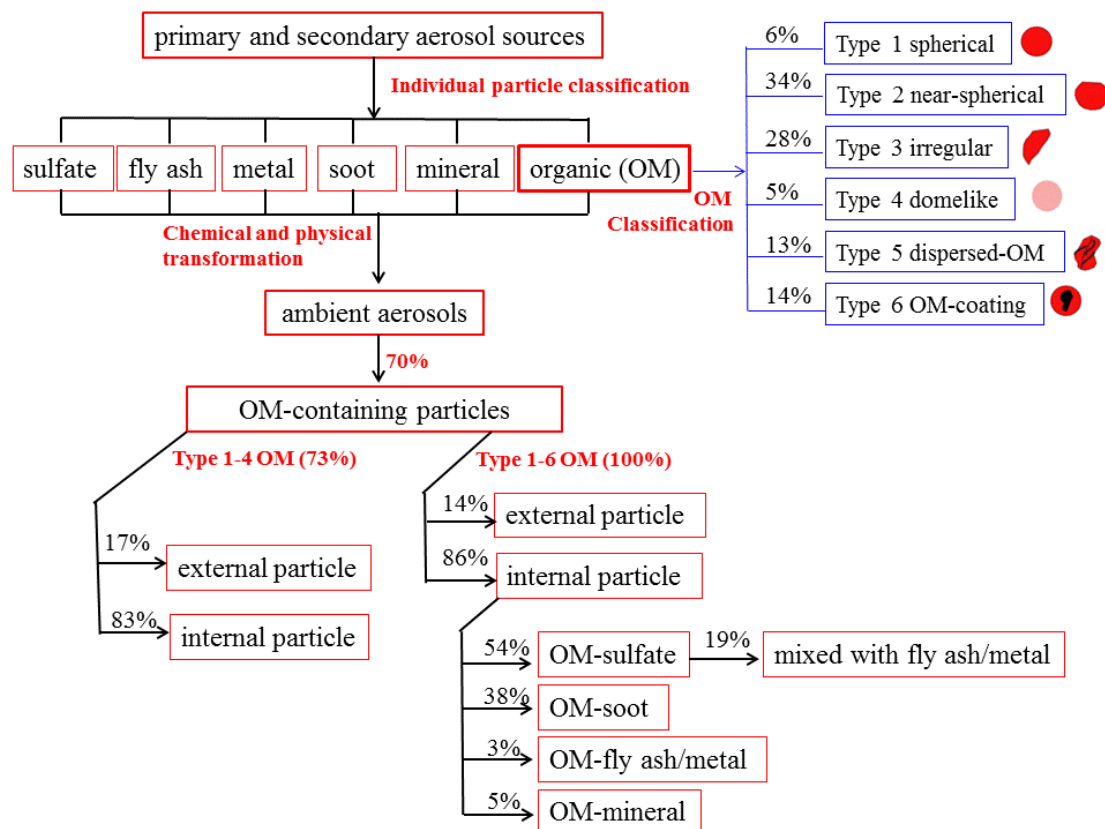


Figure 2. Flow chart of individual aerosol particles classification in L&M haze episodes in NCP based on TEM/EDX. 5090 individual particles were analyzed using TEM/EDX.

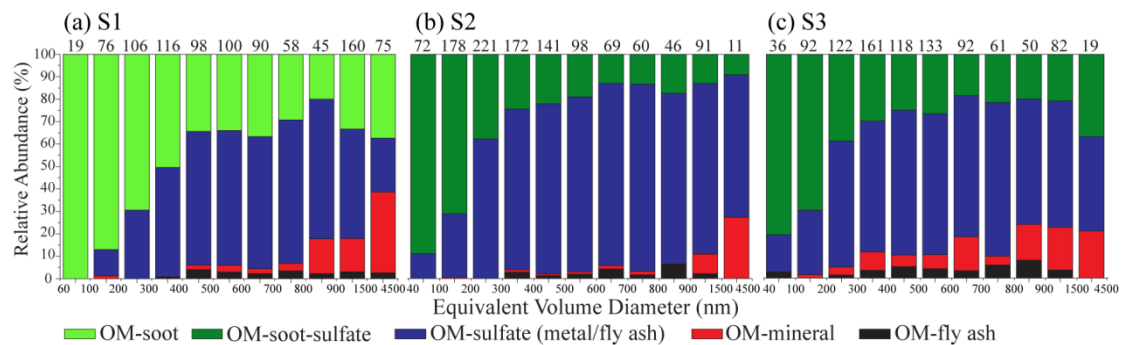


Figure 6. Number fractions of OM internally mixed particles at (a) S1 site (urban Jinan), (b) S2 site (Mt. Tai top), and (c) S3 site (polluted background). The number of analyzed particles in different size ranges is shown above each column.

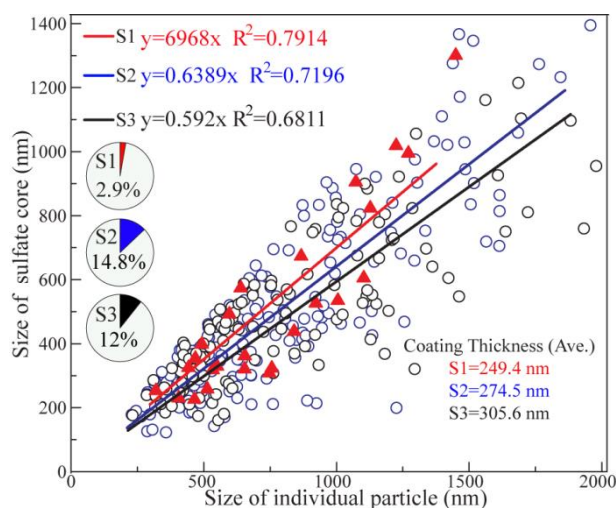


Figure 9. The relationship between the size of individual particles and their sulfate cores based on 366 OM-coating particles at S1, S3, and S3 sites. The smaller slope represents the thicker OM coating. The number fractions of OM coating particles to OM-containing particles at three sampling sites are shown in the pie charts.

Supplementary Figures:

We added Figure S2

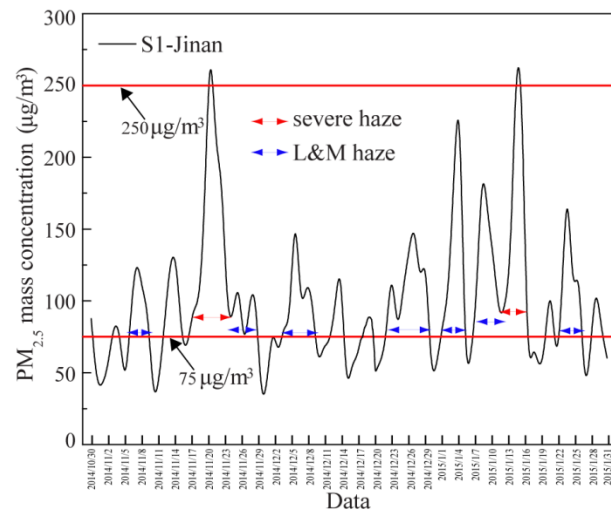


Figure S2. The timescale of haze events in Jinan city based on the statistic data.