1.062 Characterization and comparison of organic tracers in five mega cities, China, 2013 and 2003.

Early Career Scientist

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Abstract:

A study focuses on the characterization of organic tracers in five mega cities in China, Beijing, Xi'an, Shanghai, Guangzhou, Hong Kong. Seasonal variations in OC, EC, organic tracers, and some ions are measured by using the offline analysis methods. Mainly introduced n-alkanes, PAHs, hopanes, sugars, n-alkanoic acid, n-alkanols, phthalates and so on in these regions. In 2003, the laboratory had made simultaneous observations of five cities. Ten years later, in 2013, the campaign was conducted in the same season and in the same locations. The results of 2003 observations have been published in Wang et al. 2006. This report provides detailed reports on observations and compares the differences in emissions of organic matter over a decade. The analysis can then lead to a decade of China Changes in urban emission source data. At the same time, the offline data source apportionment results discussed in this work were obtained from PMF analysis (Paatero and Tapper, 1994) of GC-MS using the Multilinear Engine (ME-2; Paatero, 1999). The Source Finder toolkit (SoFi; Canonaco et al., 2013, v.6.37) for Igor Pro (Wavemetrics, Inc., Portland, OR, USA) served as interface for data input and result evaluation.