Atmospheric
Chemistry
and Physics
Discussions

Interactive comment on "Characterization of ambient volatile organic compounds and their sources in Beijing, before, during, and after Asia-Pacific Economic Cooperation China 2014" *by* J. Li et al.

Anonymous Referee #1

Received and published: 14 May 2015

This study investigated characteristics of ambient VOCs in Beijing, China for the periods before, during and after Asia-Pacific Economic Cooperation (APEC) meeting. The SOAP model and the positive matrix factorization (PMF) model were employed in this study. Results discussions are comprehensive and some valuable information have been generated. I would recommend the paper to be accepted for publication after minor revisions as listed below. Specific comments 1. P12460, L11. "…for 113 organic compounds are listed in Table S3". Please check the number of organic compounds. 2. P12463, L13-15. "…the highest/lowest-value ratios of 2, 2-DMB and acetylene were

2.13 and 2.32, respectively." This statement is hard to understand. Please explain how you defined the so called "highest/lowest-value ratios". 3. P12463, L17-18. It is hard to understand how you concluded that combustion may have been an important nighttime source of VOCs during the second and the third periods, please clarify. 4. P12463, L20. Title of chapter 3.3.1 can be simplified as "Identification of VOC sources". 5. P12468, L1, Title of chapter 3.4 can be simplified as "Source of SOA formation'. 6. P12468, L7-8. "…the SOAP-weighted mass contributions of VOC sources were very similar." This statement is vague. Please explain similar to what. Technical comments 1. P12456, L13. Delete "Obtaining". 2. P12463, L24. Replace "following" with "after". 3. P12468, L15. Replace "the next largest" with "the second largest".

Interactive comment on Atmos. Chem. Phys. Discuss., 15, 12453, 2015.