

Interactive
Comment

Interactive comment on “Source characteristics of volatile organic compounds during high ozone episodes in Hong Kong, Southern China” by J. Zhang et al.

Anonymous Referee #1

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In the manuscript, the authors tried to identify major sources of VOCs in Hong Kong. They have used ratio values, mostly VOCs, to analyze relative importance of various VOC sources. I believe the approach used in the manuscript is a reasonable one and can be used (1) to identify major sources if no detailed emission inventory be available and (2) to verify existing emission inventory. The logical steps taken by the authors are sound. However, since the used approach includes some uncertainty, it is important to discuss (quantitatively, if possible) on the probable errors on the results in more detail. Thus, I recommend the manuscript be accepted for publication in the Atmospheric Chemistry and Physics with minor revisions. On the specific points are: 1. On the limitations of the used approach: I think it is important to discuss on the limitations and

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uncertainties of the approach used in the manuscript. 2. It would be nice if some kind of review table(s) be given on the ratio values used in this study. 3. In section 3.1: I think it is probably inevitable to use USEPA database. Still it needs some kind of sensitivity analysis on the degree of possible errors. The authors did compare their result with the TRACE-P inventory for some ratio values in section 3.3. However, it would be better to compare their result with the result with different speciation data. For example, the source profile for Seoul, Korea (Na et al., Chemosphere, 55, 585-594, 2004) can be used. 4. The approach using dCO/dNOy sounds interesting but I think the result from this analysis needs further evidences. I recommend the authors state on the limitation of the approach.

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 8847, 2008.

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