

Interactive comment on “Exploring the inconsistent variations in atmospheric primary and secondary pollutants during the G20 2016 Summit in Hangzhou, China: implications from observation and model” by Gen Zhang et al.

Anonymous Referee #2

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Based on the unique case of G20 held in Hangzhou, the authors systematically evaluated the effectiveness of powerful control measures implemented by the Chinese State Council on reducing atmospheric primary (i.e., NO_x, SO₂, and CO) and secondary pollutants (PAN and O₃) after discriminating the effect of meteorological condition during G20. Then, they explored the underlying mechanisms of photochemical pollution including PAN and O₃ by using MCM, appointed the source of VOCs by PMF model and further calculated the OFP for these various sources. The observational dataset are valuable, and the manuscript reports the measurement results well. In summary,

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the topic is very interesting and the manuscript is also of good quality. Thus I strongly recommend it could be published in the ACP after minor revision below. 1) line 25-26 reconstruct this sentence as “...during G20 Summit provide us a unique opportunity to address this issue. Surface concentrations of...” 2) line 53 add the phrase “matter” after “particulate” 3) line 89-90 rewrite this sentence 4) line 120-121 add some detailed information about the PM_{2.5} measurement. 5) line 124-125 the abbreviate phrase of “EMC” and “EEC” are not consistent with those below. Revise them.

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