

Reviewer Comments

Title: Biogenic isoprene and implications for oxidant levels in Beijing during the 2008 Olympic Games
Atmos. Chem. Phys. Discuss., 13, 25939-25967, 2013
www.atmos-chem-phys-discuss.net/13/25939/2013/
doi:10.5194/acpd-13-25939-2013

Overall Comments:

I recommend rejecting this paper for publication in ACP because it does not provide any new insights into ozone production in Beijing. The paper provides an overview of NMHCs during the CAREBeijing-2008 campaign, but the subsequent analysis is very weak. I suggest that the authors attempt to reproduce the observations, i.e. the difference in ozone in summer 2006 versus summer 2008, using a regional photochemical model. This may offer them the opportunity to test their proposed mechanisms. As written, the paper only provides a summary of possible mechanisms for the observations. No effort is made to rule out various hypotheses. It would also be interesting to look at the observations from 2006 and 2008 in the context of any longer term measurements of ozone from PKU.

Specific Comments (Mainly Grammatical Comments):

There are a number of poorly written sentences in the manuscript.

Page 25941, lines 19-25: "up to" is confusing when no timescale is given for the comparison

Page 25942, lines 6: replace "proposals" with "hypotheses"

Page 25942, line 7: replace "were published" with "have been published"

Page 25942, lines 18-20: error in sentence, perhaps remove "large amounts of" from sentence

Page 25945, second 2.1.3: Brief description of ozone and CO measurements is needed or it would also be OK to add an appropriate reference.

Page 25946, line 25: Replace "In the study" with a specific reference to Wang et al, (2013) if this is appropriate.

Page 25947, lines 14-15: Discuss this earlier in the manuscript.

Page 25950, lines 10-12: Sentence is missing a word – grammar is strange.

Page 25951, lines 21-24: Why is this surprising?

Page 25954, lines 26-28: The concept here is confusing and I don't understand the logic.

Page 25955, lines 13-14: Grammar issue in this sentence.

Figure 4: This figure could be improved by using a log scale on the y-axis. Effort should also be made to make this figure as large as possible to improve readability.

Figure 5: Effort should be made to compare this data to 2006 in another set of panels.