

Interactive comment on “Branch-level measurement of total OH reactivity for constraining unknown BVOC emission during the CABINEX (Community Atmosphere-Biosphere Interactions Experiments)-09 Field Campaign” by S. Kim et al.

Anonymous Referee #1

Received and published: 28 April 2011

This paper is a very important contribution to the discussion of BVOC emission contribution to OH reactivity. Using data collected at the PROPHET site, the authors show that the “missing OH reactivity” is most likely due to oxidation products of known BVOCs, like isoprene in this ecosystem.

The only comments I have are minor ones.

- Table 1: The column headings are confusing. There are two headings named “abun-
C2435

dances” or “

- Table 1 2: These tables have the same information (just different plant species), so maybe combine them.
- The captions for Figures 3, 4, 5, 7a are very long and complicated. There also seems to be some repetition between the words inside and outside of the parentheses. These captions should be simplified.
- Figure 3 has the x-axis time in terms of a 24-hour clock, but the other figures are based on a 12-hour clock. Be consistent.
- Figure 4: Is this simply a close-up of the middle portion of Figure 3? I assumed “red oak” is the same as “oak.” The caption should reflect the fact that Fig 4 3 are related or make it Figure 3a and 3b. Be cautious of the darkness/shading created by the vertical lines so that it does not obscure the data.
- The section numbering is confusing because it seems like the entire paper is categorized under the introduction (section 1).
- When line 21-22, “and the ozone and VOC scrubbed air was introduced,” is first read, it sounds like ozone was added with the VOC scrubbed air. It gave me pause and I had to re-read it to realize that the air was scrubbed of ozone.
- A little more information about the branch enclosure would be helpful. What type of Teflon enclosure, etc. The authors can simply reference another description of it, since it is not a focus of the paper.

Interactive comment on Atmos. Chem. Phys. Discuss., 11, 7781, 2011.