Atmos. Chem. Phys. Discuss., 9, C7314–C7315, 2009
www.atmos-chem-phys-discuss.net/9/C7314/2009/

Atmospheric Chemistry and Physics Discussions

Interactive comment on "Carbonyl sulfide exchange in a temperate loblolly pine forest grown under ambient and elevated CO_2" *by* M. L. White et al.

M. L. White et al.

hey_marg@hotmail.com

Received and published: 20 November 2009

We would like to thank both the referees for their comments. Their suggestions were very helpful in improving the readability of this manuscript and we believe it is an even stronger paper as a result. We agree with both referees that this study presents a valuable addition to the current literature on COS exchange despite certain limitations in the data set. We appreciate their fair and dispassionate evaluation of the paper and will be pleased to see the revised manuscript published in Atmospheric Chemistry and Physics. The authors' responses to specific comments made by Referee #2 are given below:

Anonymous Referee #2, Atmos. Chem. Phys. Discuss., 9, C5681-C5683, 2009.

Specific Comments:

1. We have shortened Section 3 as suggested by the referee. In particular, we have edited sections 3.2 on vertical profile measurements, 3.3.2 on the relationship between stomatal conductance and photosynthetic capacity for sweet gum trees, and 3.4 on soil flux measurements. We do believe that the inclusion of these results is necessary to present a full picture of the data collected. However, we agree that the discussion of these particular measurements could be reduced to allow a more effective and focused presentation of results.

2. We have made our discussion of the potential impacts of increasing CO2 levels on COS consumption in section 1 more precise with specific references as suggested by the referee.

3. We have clarified our conclusion in section 3.5 that a GPP based model of vegetation COS uptake may underestimate the vegetation sink for this gas as it does not incorporate COS uptake that occurs independently of CO2 consumption.

4. We have changed the colors used to distinguish daytime and nighttime fluxes in Figure 12 to blue and green to provide greater contrast.

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 17219, 2009.