

B. Bohn

I would like to draw the author's attention to another field investigation addressing potential in-canopy reaction of biogenic VOCs. The ECHO campaign was conducted in a deciduous forest dominated by beech that effectively attenuated actinic radiation entering the canopy (Bohn et al., J. Geophys. Res., 111, D12303, doi: 10.1029/2005JD006856, 2006). Consequently OH radical concentrations were low within the forest. A comparison with isoprene flux and isoprene concentration measurements at the same site (Spirig et al., Atmos. Chem. Phys., 5, 465–481, 2005) then revealed that only a very minor fraction <1% of isoprene was subject to in-canopy loss (Bohn, J. Geophys. Res. 111, D15303, doi: 10.1029/2005JD006902, 2006).

Reply to Dr. Bohn

Thanks to Dr. Bohn for commenting on this article. The author is very familiar with both the ECHO campaign and Dr. Bohn's excellent within-canopy actinic flux measurements. As noted in the text of the manuscript, examples of field experiments conducted within forest canopies were limited to those which were carried out in temperate North American forests. This restriction was done only for brevity's sake. It was beyond the scope of this manuscript to fully survey results from the wealth of measurements made at all forest canopy atmospheric chemistry measurement sites around the world. It is the hope of the author that the model described in the current manuscript will assist in the analysis and interpretation of such measurements in the future.