

Interactive comment on “Fluxes and concentrations of volatile organic compounds from a South-East Asian tropical rainforest” by B. Langford et al.

Anonymous Referee #3

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General comments

Langford et al. present a valuable data set of direct BVOC flux measurements from an area where no measurements of this kind have been carried out so far. Most of the methodical aspects are clearly described and seem appropriate, the results are presented in a balanced way and the conclusions are adequate. My fellow reviewers did a great job in identifying the points needing some clarification or revision before the manuscript can be published. The authors demonstrated with their elaborate reply to the first reviewer, that they are willing to address these points with appropriate revisions and I expect them to address the second reviewer's comments in the same

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manner. I therefore take the liberty in keeping my comments very short.

Specific comments

I share the concerns of reviewer 2 on the many citations of not yet published manuscripts in this work. As long as the cited manuscripts are not published, it is critical to not only cite them, but to at least also summarise the relevant outcomes where they are critical for this manuscript. On the other hand, some of the references to not-yet-published-manuscript can be left out.

p. 11979: When describing the setup and flow rates of the main sampling line, add also information on whether the sample flow was controlled or not.

p. 11983-11984: Comparison of IRGA- and PTR-MS latent heat fluxes. In their reply to reviewer 1 the authors already recognized that the disjunct sampling cannot account for the 30 % systematic difference. I am somewhat more concerned about the rather weak correlation of IRGA- and PTR-MS-water vapour fluxes. In fact, I would not conclude a systematic 30% underestimate by the PTR-MS from this plot, the regression seems largely affected by outliers. Have the authors tested the influence of a more rigorous data selection (increasing u^* threshold or selecting based on a signal/noise ratio) on the quality of this correlation? If the flow rate through the main sampling line was not controlled, could varying pump speed be the reason for such a large scatter?

Technical corrections

p. 11984, l.24: Specify what the 30 % refer to (ppb, ppbC?).

p. 12000: Two different papers are referred to as “Hewitt et al. 2010a”

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 11975, 2010.

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