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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Rethinking the global secondary organic aerosol (SOA) budget: stronger production, faster removal, shorter lifetime" *by* A. Hodzic et al.

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Congratulations to an excellent paper, which represents important progress in our understanding of the global atmospheric cycle of secondary organic aerosols!

I have a minor, but important, technical comment, which should be addressed in the revised version. In presenting concentrations at altitude, it is essential to state clearly whether these represent concentrations at ambient temperature and pressure, or whether they have been normalized to a standard temperature and pressure. Since standard conditions vary depending on different conventions, their value should be given explicitly. To help the reader, I recommend including this specification in the

captions of Figures and Tables, in addition to giving it in the methods section.

This has been done in commendable fashion in Figure 6, although the unit “smˆ3” for “cubic meter at standard conditions” is in conflict with SI recommendations and probably should be replaced by “mˆ3 (STP)”. Unfortunately, however, Figure 2 is missing any information about whether the concentrations shown here represent ambient or standard conditions. I request that the authors provide this information in the revised paper.

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Interactive comment on Atmos. Chem. Phys. Discuss., 15, 32413, 2015.