

Interactive comment on “Towards closing the gap between hygroscopic growth and CCN activation for secondary organic aerosols – Part 3: Influence of the chemical composition on the hygroscopic properties and volatile fractions of aerosols” by L. Poulain et al.

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I really enjoyed reading about this paper's results. Just a short comment I can offer is that there is some highly related work that I think would continue to add value to the present manuscript. I am thinking of two reports, both under very similar conditions as investigated by the authors (i.e., ozonolysis of alpha-pinene). The first reports on the kappa value and the second reports on the high-resolution mass spectra as well

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as the density. I'd be interested (and I believe other readers would as well) to see what added value could be put into this manuscript from a comparison and contrast to those findings.

S.M. King, T. Rosenoern, J.E. Shilling, Q. Chen, and S.T. Martin, "Cloud condensation nucleus activity of secondary organic aerosol particles mixed with sulfate," *Geophysical Research Letters*, 2007, 34, L24806.

J.E. Shilling, Q. Chen, S.M. King, T. Rosenoern, J.H. Kroll, D.R. Worsnop, P.F. DeCarlo, A.C. Aiken, D. Sueper, J.L. Jimenez, and S.T. Martin, "Loading-dependent elemental composition of alpha-pinene SOA particles," *Atmospheric Chemistry and Physics*, 2009, 9, 771-782.

Minor correction: A small correction is that another paper, which is Shilling et al. (2008) is cited in the text, but it is not included in the reference list. Here's the citation:

J. E. Shilling, Q. Chen, S. M. King, T. Rosenoern, J. H. Kroll, D. R. Worsnop, K. A. McKinney, and S. T. Martin, "Particle Mass Yield in Secondary Organic Aerosol Formed by the Dark Ozonolysis of alpha-Pinene," *Atmospheric Chemistry and Physics*, 2008, 8, 2073-2088.

This paper from 2008 is correctly cited on page 16686. However, on page 16692, the citation should be to the other Shilling et al. paper from 2009 (i.e., Fig 5 therein is for density).

Interactive comment on *Atmos. Chem. Phys. Discuss.*, 9, 16683, 2009.