

Interactive comment on “Phase, composition and growth mechanism for secondary organic aerosol from the ozonolysis of α -cedrene” by Y. Zhao et al.

Anonymous Referee #2

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General

This is a sound and very interesting study of SOA formation from α -cedrene. I find the phase state investigations particularly interesting.

I have another, more general comment: Why is the role of secondary ozonides, as they are nicely discussed in depth e.g. by Yao et al., AE 2014, not discussed at all in this paper? Maybe this can be added?

Overall, I think the paper requires only few revisions / additions to be acceptable for ACP.

Details

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Page 34984, line 1: '.... in some environments'. - Maybe rephrase - SQ SOA contributions are more of local to regional rather than global importance. Maybe that can also be stated in the introduction.

P. 34986, l.1: Why were OH scavengers not applied?

P. 34988, l. 9: Was only one filter sampled over a period from $t = 0$ to $t = 30$ min, i.e. for a collected volume of 360 l? Please clarify. Would sequential filter sampling be possible?

P 34989: The array of analytical techniques applied for SOA characterisation is impressive.

P.34994, l. 25: What does 'condense kinetically' mean? A similar expression is also used at p 35007, l 3.

Interactive comment on Atmos. Chem. Phys. Discuss., 15, 34981, 2015.

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