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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Particle mass yield in secondary organic aerosol formed by the dark ozonolysis of α-pinene" *by* J. E. Shilling et al.

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It is suggested in this article that oligomeric or highly oxygenated material of low volatility is a key component of SOA particle mass at low loadings (page 17944 - line 16). Taking into account that a follow-up study is planned on the characterization of alpha-pinene ozonolysis SOA by the AMS technique, I would like to inform the authors that a very polar, highly oxygenated product from the photooxidation of alpha-pinene has recently been structurally elucidated as the C8-tricarboxylic acid 3-methyl-1,2,3-butanetricarboxylic acid. This compound has a MW of 204, is possibly the least-volatile monomeric alpha-pinene SOA species, and is proposed to be a stable end-oxidation product.

Ref.: Szmigielski R., et al.: 3-methyl-1,2,3-butanetricarboxylic acid: An atmospheric

tracer for terpene secondary organic aerosol, Geophys. Res. Lett., 34, L24811, doi:10.1029/2007GL031338.

Interactive comment on Atmos. Chem. Phys. Discuss., 7, 17927, 2007.