

## **Supporting information Cover Sheet**

### **Heterogeneous reactions of linoleic acid and linolenic acid particles with ozone: Reaction pathways and changes in particle mass, hygroscopicity and morphology**

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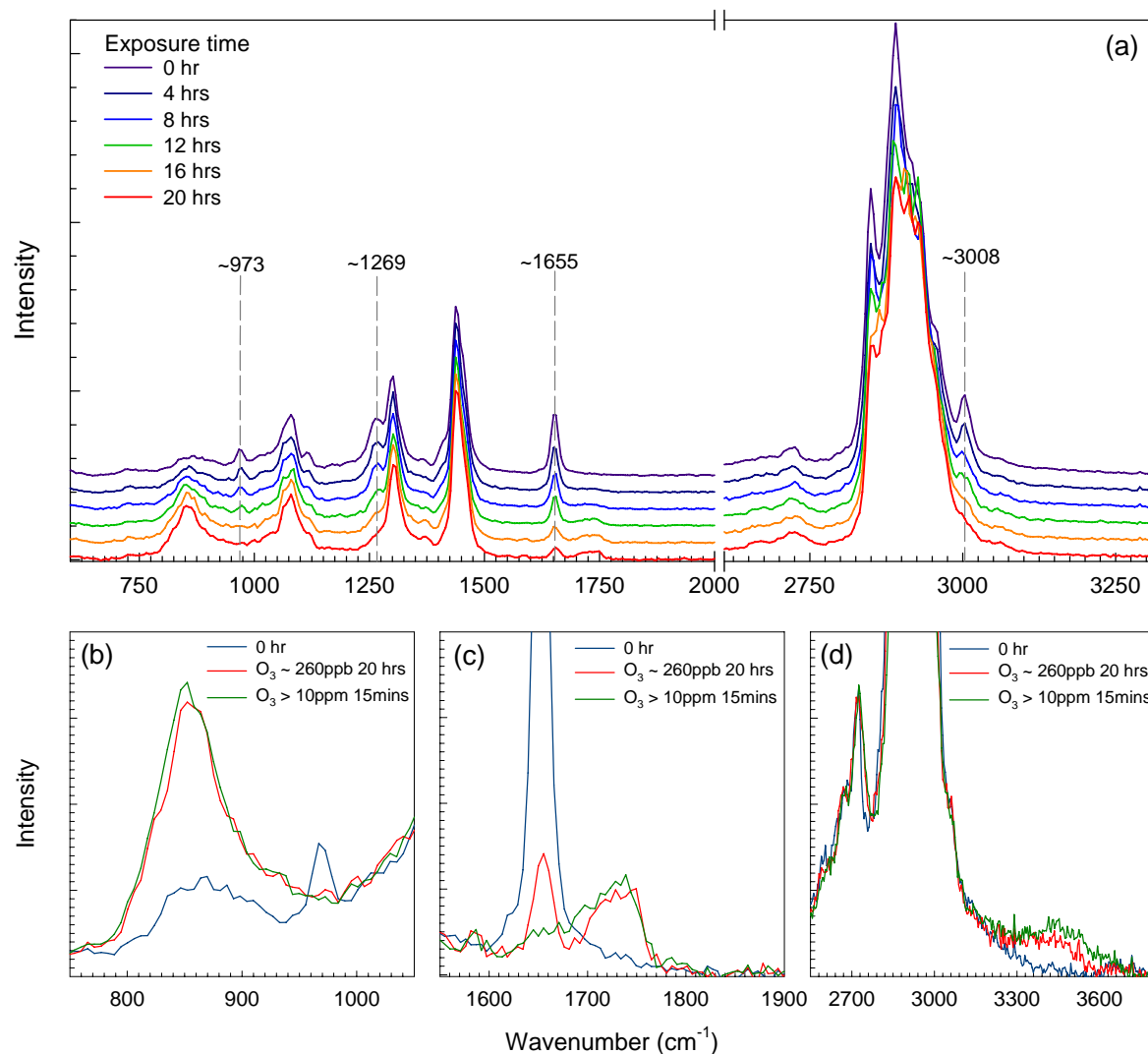
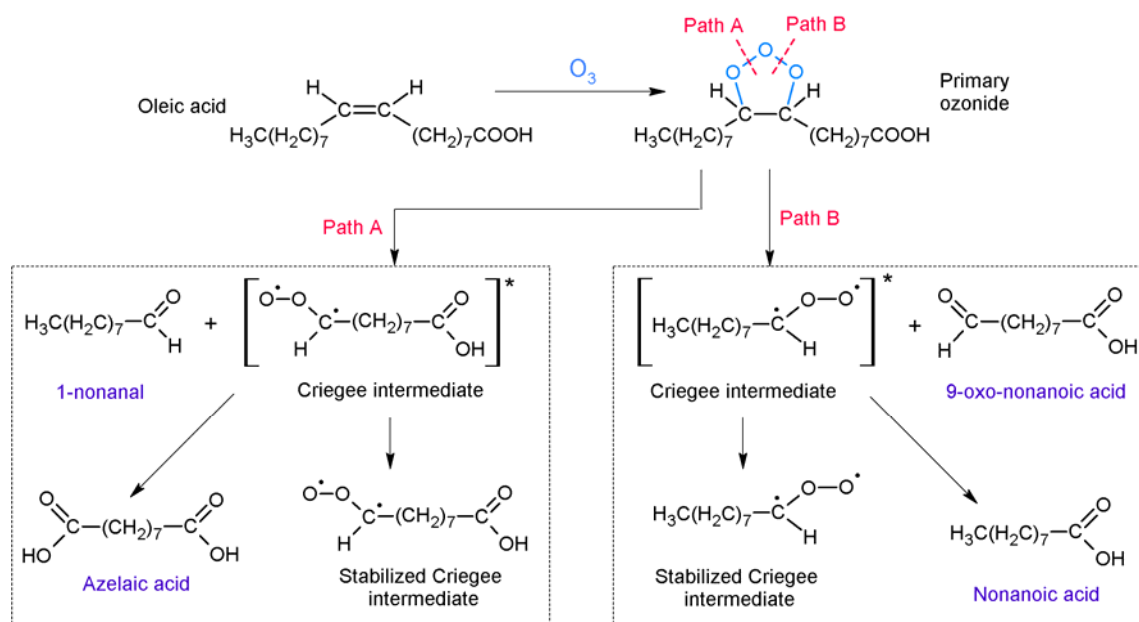


Figure S1 (a) Raman spectra of oleic acid particles at different ozone exposures obtained in the low ozone concentration experiments. Spectral features of ozone-processed oleic acid particles: Formation of (b) peroxides and ozonides, (c) carbonyl compounds and (d) hydroxyl compounds obtained in low ( $\sim 240\text{--}280$  ppb for 20 hrs) and high ozone concentration experiments ( $>10$  ppm for 1.5 hrs). The Raman spectra are normalized to the peak located at  $1443\text{ cm}^{-1}$ .

(a)



(b)

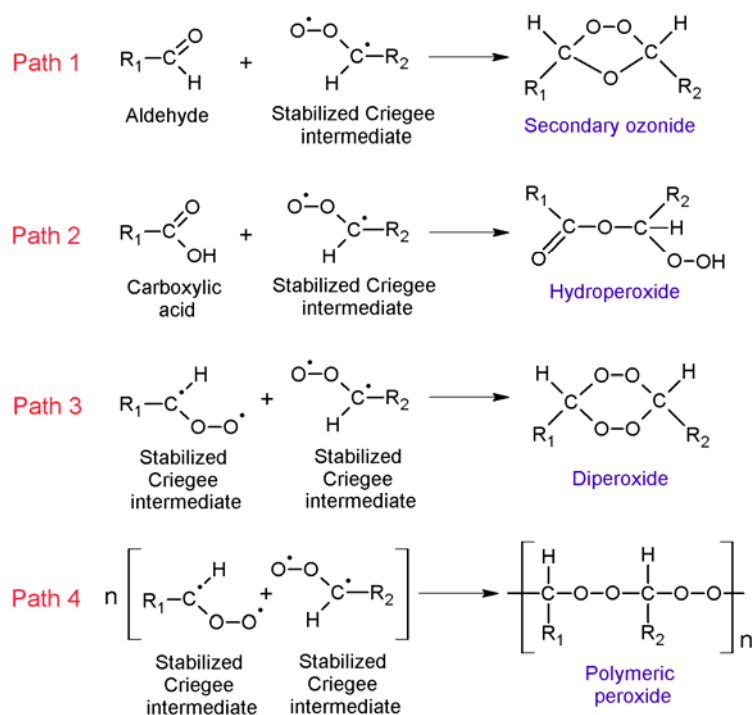


Figure S2 (a) Reaction pathways of the ozonolysis of oleic acid. (b) Possible reaction pathways involving stabilized Criegee intermediates.