

Abstract Submitted
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Photodissociation action spectroscopy of ozonized films of undecylenic acid ANTHONY GOMEZ, Univeristy of California at Irvine, AO LI, Univeristy of California at Irvine, MAGGIE WLASER, Univeristy of California at Irvine, NICOLE BRITIGAN, Univeristy of California at Irvine, SERGEY NIZKORODOV, Univeristy of California at Irvine — Photochemical studies of thin films of oxidized undecylenic acid and its salts will be presented. The films are first partially oxidized by ozone, and then irradiated with a wavelength tunable UV source in an inert atmosphere. The escaping gas-phase photochemical products are detected by cavity ring-down spectroscopy as a function of the excitation frequency. The film composition is analyzed by chromatography and mass spectrometry. The data provide critical new insights into the mechanisms of ozonolysis and photolysis of oxidized undecylenic acid, and have serious implications for atmospheric chemistry of organic aerosol particles.

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