Supporting Information

Adjacent Keto and Enol Groups in Photochemistry of a Cyclic Molecule: Products, Mechanisms and Dynamics

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FTIR spectra of the photolysis products have been recorded to confirm the identity of the products. Sample results are provided below.

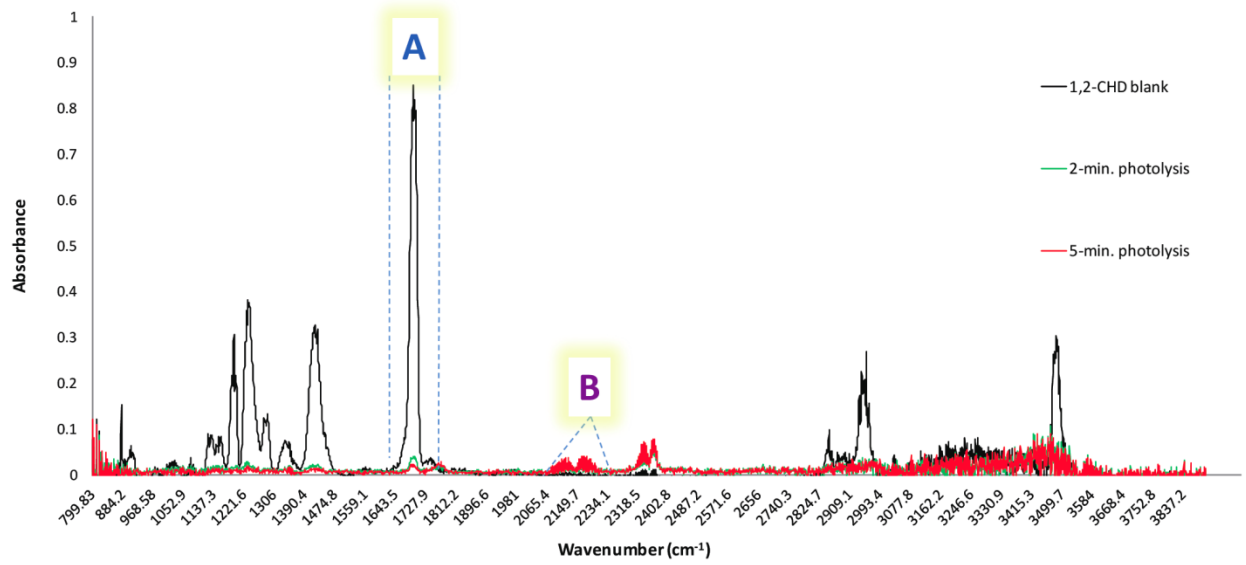

Figure S1. FTIR spectra of 1,2-CHD vapor before and after 254.7 nm photolysis. Band "A" is the main strongest IR band of CHD, which quickly disappears upon photolysis. Band "B" belongs to CO, a major product of photolysis.

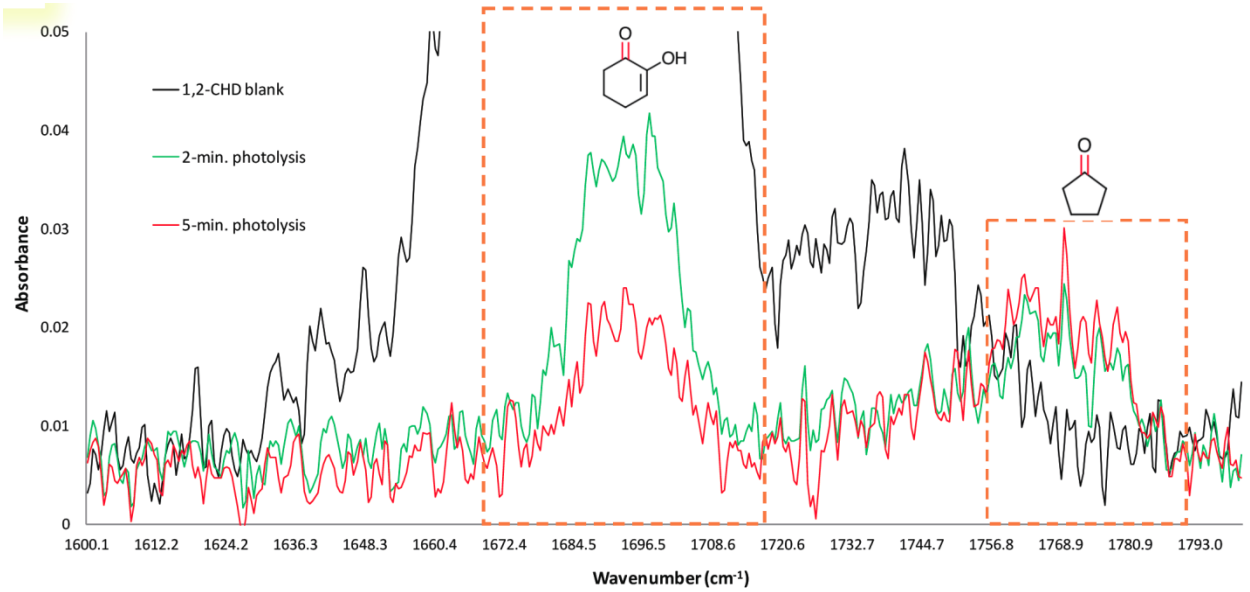

Figure S2. Disappearance of CHD and appearance of cyclopentanone in 254.7 nm photolysis of CHD vapor. The reference spectrum of cyclopentanone is shown in Figure S3.

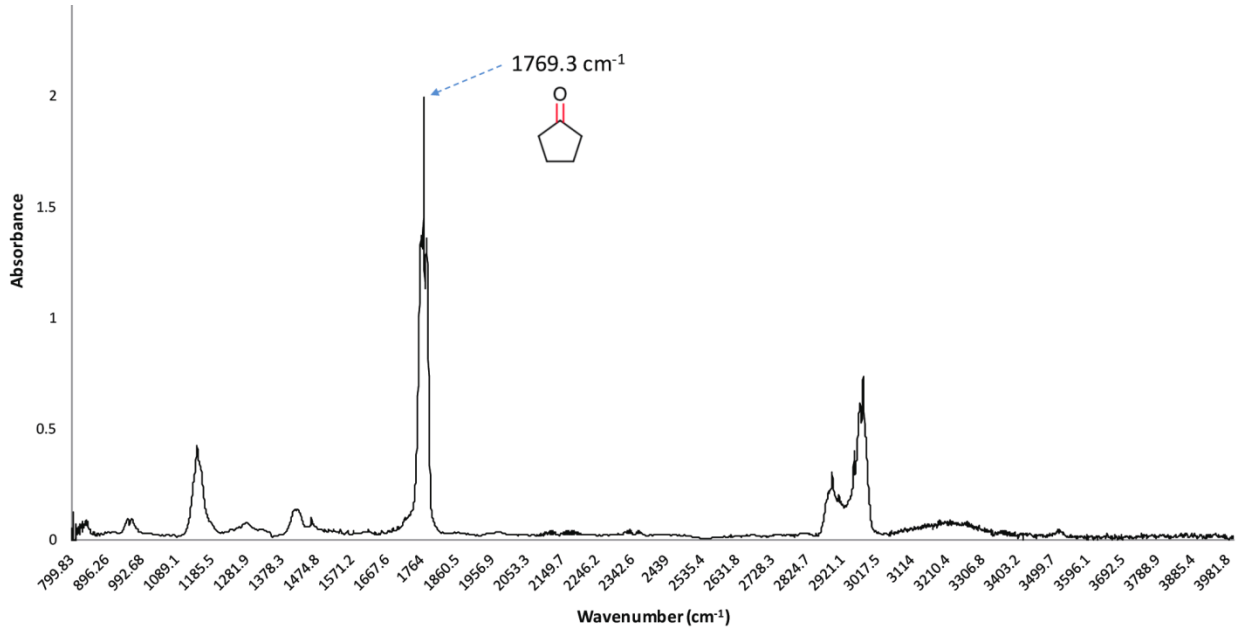

Figure S3. Reference spectrum of cyclopentanone. A volume of 0.2 μL of cyclopentanone was directly injected into a 47-liter gas-cell to obtain this spectrum.

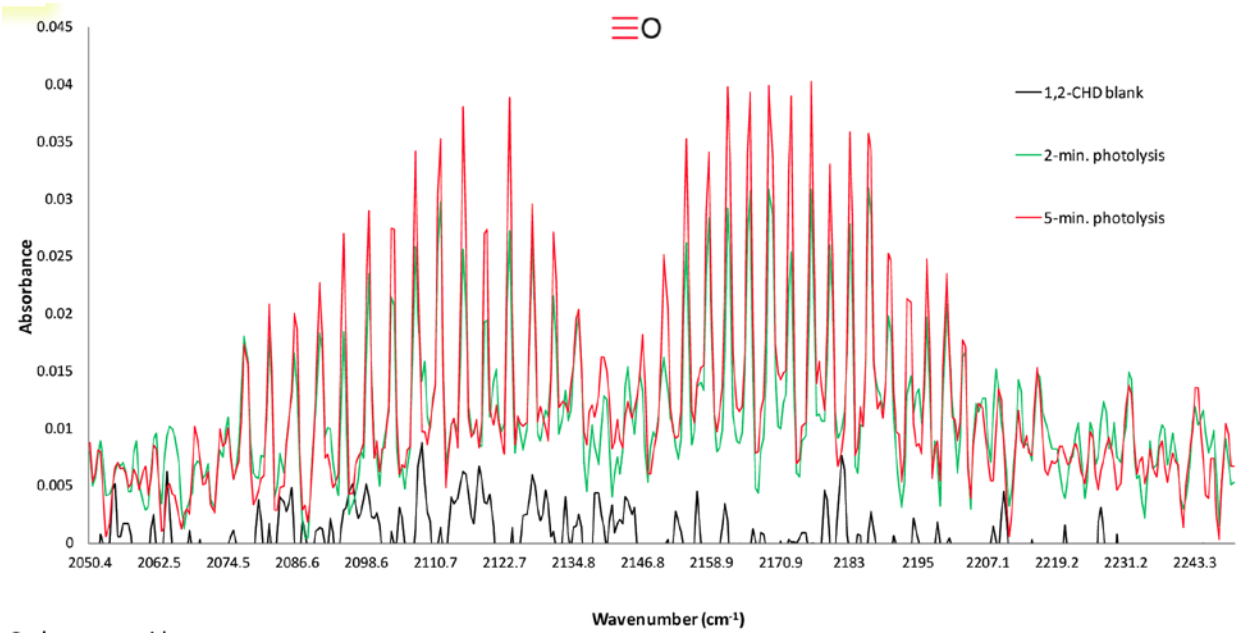

Figure S4. Appearance of CO product in 254.7 nm photolysis of CHD vapor