PHOTOISOMERIZATION DYANAMICS OF THE SUNSCREEN MOLECULE AVOBENZONE

ADAM D. DUNKELBERGER, RYAN D. KIEDA, and F. FLEMING CRIM, *Department of Chemistry, University of Wisconsin-Madison, Madison, WI 53706*.

We report the photoisomerization dynamics of the widely utilized sunscreen molecule avobenzone after near UV excitation at 350 nm. Probing with 266 nm light was utilized to elucidate isomerization dynamics producing what appears to be a twisted form of the initial enol state. Probing with broadband continuum light from 350-600 nm provides a picture of the ground state bleach, excited state dynamics, and subsequent relaxation on the ground state. The combination of these probing techniques provides a comprehensive view of the ultrafast dynamics initiated by absorption at 350 nm.