SPECTROSCOPY AND HIGH RESOLUTION PHOTOCHEMISTRY OF THE $\widetilde{A}\,^2\Pi$ STATE OF THE HCCS RADICAL

MICHAEL B. PUSHKARSKY, BRIAN APPLEGATE, and TERRY A. MILLER, *The Ohio State University, Dept. of Chemistry, Laser Spectroscopy Facility, 120 W. 18th Avenue, Columbus, Ohio 43210.*

The "dark" photodissociating vibronic levels of the $\widetilde{A}\,^2\Pi$ state of the radical have been probed in a jet-cooled expansion by the fluorescence depletion spectroscopy (FDS) technique. Over thirty dark levels have been observed within the region of 2000 cm^{-1} above the origin. The FDS spectrum compliments previously taken LIF spectrum. Vibronic analysis and fragmentation process will be discussed.