

## CAVITY RINGDOWN SPECTROSCOPY OF THE DARK $\tilde{A}^2E''$ STATE OF $\text{NO}_3$

A. DEEV, J. SOMMAR and M. OKUMURA, *Arthur Amos Noyes Laboratory of Chemical Physics, California Institute of Technology, Pasadena, California 91125.*

The forbidden  $\tilde{A}^2E'' - \tilde{X}^2A'$  transition of  $\text{NO}_3$  has been observed in the near IR (1.1-1.5 micron) by cavity ringdown spectroscopy. Several new vibronically allowed bands are recorded, and definitive vibrational assignments and rotational contour analysis will be presented, allowing for a more precise estimate of the band origin. The influence of the Jahn-Teller effect on the transition structure will be discussed.