CAVITY RINGDOWN SPECTROSCOPY OF THE DARK $\widetilde{A}\ ^2E''$ STATE OF NO_3

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The forbidden $\widetilde{A}\ ^2E''$ - $\widetilde{X}\ ^2A'$ transition of 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.