CAVITY RINGDOWN SPECTROSCOPY OF THE NU1 BAND OF HNO3: DERIVING ACCURATE INTEGRATED INTENSITIES FROM BROAD BAND MEASUREMENTS

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Cavity ringdown spectroscopy (CRDS) is a method which utilizes a highly reflective optical cavity to obtain high spectroscopic sensitivity. Given its sensitivity, it is desirable to use CRDS to make quantitative measurements of trace species. We have conducted a theoretical and experimental analysis of the $\nu 1$ band of HNO3 to evaluate the accuracy of our infrared-CRDS apparatus as a quantitative spectroscopic tool.