ECTDL SPECTRUM OF $^{15}NH_3$ IN THE 6370-6580 CM^{-1} REGION OF THE $\nu_1 + \nu_3$ NH-STRETCHING COMBINATION BAND

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The infrared spectrum of the N-15 isotopic species of ammonia is being investigated in the 6370-6580 cm^{-1} region with an external cavity tunable diode laser spectrometer. The patterns of some of the stronger absorption lines are very similar to those known for the $\nu_1 + \nu_3$ N-H stretching combination band of normal $^{14}NH_3$, permitting immediate assignment by analogy with the known N-14 transitions. For $^{15}NH_3$, the $\nu_1 + \nu_3$ band origin is shifted downwards by 12.2 cm^{-1} relative to $^{14}NH_3$. From the preliminary spectra, the absorption intensities appear fairly comparable for both species, but more careful measurements to better define the isotopic intensity ratio are underway.