

## REVISED MOLECULAR LINE PARAMETERS OF AMMONIA

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The line parameters of ammonia for the HITRAN and GEISA databases have been revised using new laboratory studies of line positions and intensities measured at 0.0056 and 0.011  $\text{cm}^{-1}$  resolution with the McMath Fourier transform spectrometer located at Kitt Peak National Observatory. The vibrational bands analyzed recently are  $2\nu_2$  and  $\nu_4$  between 5 and 8 micron and  $2\nu_4$ ,  $\nu_1$  and  $\nu_3$  near 3 micron. To characterize the 5 micron window, several hot bands have also been studied; these include  $3\nu_2$  (s) -  $\nu_2$  (a),  $3\nu_2$  (a) -  $\nu_2$  (s),  $\nu_2 + \nu_4$  (s) -  $\nu_2$  (s) and  $\nu_2 + \nu_4$  (a) -  $\nu_2$  (a) located at 1416., 1963., 1608. and 1618.  $\text{cm}^{-1}$ , respectively. For this longer wavelength region, more than 1600 line intensity measurements have been modeled to 5% for the cold bands and 8% for the hot bands so that a complete spectrum can be predicted from theoretical models. To complete the database, empirical expressions for foreign-broadened line widths (derived by Nemtchinov from measurements at 10 micron) have been applied to all ammonia transitions up to 2 microns.

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