

SPECTROSCOPY OF THE $\nu_1 + \nu_2 - \nu_3$, $2\nu_1 - \nu_3$, $2\nu_1$, $3\nu_1$, $2\nu_1 + \nu_3$ AND $3\nu_1 + \nu_3$ OVERTONE AND COMBINATION BANDS OF BrNO

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The rotation structure of the $\nu_1 + \nu_2 - \nu_3$, $2\nu_1 - \nu_3$, $2\nu_1$, $3\nu_1$, $2\nu_1 + \nu_3$ and $3\nu_1 + \nu_3$ overtone and combination bands of BrNO were examined at high resolution ($.005 - .01 \text{ cm}^{-1}$) using Fourier Transform Spectroscopy. Over 4900 spectral lines were recorded for the two isotopomers $^{79}\text{BrNO}$ and $^{81}\text{BrNO}$. The rotational and quartic distortion terms, inertia defects and asymmetry parameters were determined for the (200), (300), (001), (200), (301) and (110) vibrational levels. The first-order vibration-rotation interaction terms were also determined.