

THE FAR-INFRARED SPECTRA OF CYCLOPROPYLAMINE

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The infrared spectra of cyclopropylamine ($c\text{-C}_3\text{H}_5\text{NH}_2$) in the region of $35\text{-}600\text{ cm}^{-1}$ have been measured at 298K with a resolution of 0.00096 cm^{-1} using the far-infrared beamline at the Canadian Light Source synchrotron. We report here the results of the rovibrational analysis of the ν_{27} (253.87 cm^{-1}) -NH_2 torsional fundamental, as well as the pure rotational analysis of transitions associated with the ground state and the first excited state of the -NH_2 torsional mode between 35 and 60 cm^{-1} . The ongoing assignment and analysis of hot bands and overtones involving higher torsional states will also be discussed.