THE FAR-INFRARED RING-PUCKERING ROTATIONAL-VIBRATIONAL SPECTRUM OF 2,5-DIHYDROFURAN

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The far-infrared spectrum of 2,5-Dihydrofuran has been recorded and it shows several ring-puckering transitions along with rotational-vibrational fine structure. Since the molecule is a near symmetric top (A = 0.267 cm^{-1} and B = 0.261 cm^{-1}), the peaks are separated by approximately 0.53 cm^{-1}. Despite the overlap between several puckering bands, the fine structure can be nicely resolved with a resolution of 0.1 cm^{-1}. The ring-puckering spectrum consisting of a series of bands between 99 and 185 cm^{-1} is similar to that previously reported.