

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

EUGENE J. BONDOC, JAAN LAANE, *Department of Chemistry, Texas A&M University, College Station, TX 77843.*

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 ($A = 0.267 \text{ cm}^{-1}$ and $B = 0.261 \text{ cm}^{-1}$), 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.