

A SLIT-JET INFRARED SPECTRUM OF 1,3-BUTADIENE

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A slit-jet infrared spectrum of the CH stretching fundamental band ν_1 of trans-1,3-butadiene has been measured with a difference frequency laser system in the wavenumber region 3090 - 3120 cm^{-1} . The optical resolution of the spectrum is about 100 MHz. An *a/b*-type hybrid band structure is observed. A detailed analysis of the spectrum will be presented, and the role of large amplitude motion and intramolecular vibrational energy redistribution will be discussed.