THE RING STRUCTURE OF CYCLOHEXANONE

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The study of cyclic organic compounds and their conformations has received considerable attention in the past decades. Cyclohexanone has been studied using electron diffraction and microwave spectroscopy. The MW studies are restricted to the main isotopomer in its ground and some vibrationally excited states;[a] no study of isotopic species and therefore no (at least partial) substitution structure has been reported yet.

Microwave spectra of ^{13}C isotopomers of cyclohexanone have been measured at natural abundance using a standard molecular beam FTMW spectrometer in order to determine the substitution structure of the carbon ring nuclei. The structure obtained by Alonso[a] agrees well with the present r_S structure.

[a] J. L. ALONSO, *J. Mol. Struct.*, **73**, 63 (1981).