

ROTATIONAL SPECTROSCOPY OF TETRAHYDRO-2-FUROIC ACID, ITS CHIRAL AGGREGATES AND ITS COMPLEX WITH WATER

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Rotational spectra of Tetrahydro-2-furoic acid (THA), a chiral acid, and its homo- and heterochiral dimers, and its complex with water have been recorded using a chirped pulse Fourier transform microwave spectrometer. This chiral acid was predicted to have nine conformers, although only the most stable one was detected experimentally and its rotational spectrum assigned. We have analyzed its intramolecular H-bonding pattern in detail. Eleven conformers have been predicted for the 1:1 hydration complex between THA and water and 14 conformers for (THA)₂. The assignments of these complexes are currently underway and will be presented.