

Pure Rotational Spectrum of Butanoic Acid*

June L.(?) Claughton, Vanesa V. Vaquero, and David W. Pratt

Department of Chemistry, University of Vermont

Many long chain carboxylic acids have folded structures in the gas phase, owing to the formation of *intramolecular* hydrogen bonds. But shorter chain acids like methanoic, ethanoic, and propanoic are “linear”. So, an interesting question is whether or not the next member of this series, butanoic acid, is folded or not. This report will describe CP-FTMW experiments and *ab initio* calculations that were designed to answer this question.

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