

A CONFORMATIONAL STUDY OF *META*-ANISIC ACID AND ITS COMPLEXES WITH FORMIC ACID BY MICROWAVE SPECTROSCOPY

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The *meta*-anisic acid and its complexes with formic acid have been studied in the 2-15 GHz frequency region using chirped-pulse Fourier transform microwave spectroscopy (CP-FTMW). For *meta*-anisic acid, four conformations have been identified. The four conformations resulting from the possible arrangements of the carboxylic and methoxy groups have been identified. In addition, the spectra of mixtures of *meta*-anisic acid and formic acid were investigated. Four species were found where formic acid is attached to the acid group through two O-H \cdots O=C complementary hydrogen bonds. These complexes correspond to the four *meta*-anisic acid stable structures that seem to be not essentially modified after the complexation process.