MICROWAVE SPECTRA OF FLUORINATED PROPIONIC ACIDS AND THEIR HYDRATES

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The microwave spectra of three fluorinated propionic acids, namely pentafluoropropionic acid, 2,2,3,3-tetrafluoropropionic acid, and 2,3,3,3-tetrafluoropropionic acid have been observed and assigned. The spectra of pentafluoropropionic acid and its monohydrate were reported in this meeting last year. The conformational analysis of 2,2,3,3-tetrafluoropropionic acid and 2,3,3,3-tetrafluoropropionic acid will be compared to that of pentafluoropropionic acid. The structures of the three monohydrates will be discussed in terms of hydrogen bonding.