THE STUDY OF SMALL BIOMOLECULES USING CHIRPED-PULSE FOURIER TRANSFORM MICROWAVE (CP-FTMW) SPECTROMETER IN THE GAS PHASE[a]

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The microwave spectra of a large molecule is sensitive to both the structure of the molecule and as well as its motion along different vibrational coordinates. Chirped-pulse Fourier transform microwave (CP-FTMW) spectroscopy is an exciting new technique that makes possible the reading of the complete microwave spectrum of a gas phase sample using a single 1 s pulse. In this report, we will describe the recent introduction of a laser ablation nozzle for the study of small biomolecules using this technique. Potential applications of the technique to other samples also will be described.

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