APPLICATION OF A NEWLY BUILT CHIRPED-PULSE FOURIER TRANSFORM MICROWAVE (CP-FTMW) SPECTROMETER TO STUDY BIOMOLECULES IN THE GAS PHASE[a]

RYAN G. BIRD and DAVID W. PRATT, *Department of Chemistry, University of Pittsburgh, Pittsburgh, Pa 15213*; JUSTIN L. NEILL and BROOKS H. PATE, *Department of Chemistry, University of Virginia, Charlottesville, Va 22904*.

Chirped-pulse Fourier Transform Microwave (CP-FTMW) spectroscopy is an exciting new technique that makes possible the recording of the complete microwave spectrum of a gas phase sample using a single 1 μs pulse.[b] In this report, we will describe the application of this technique to a model system, the keto-enol tautomerization of 2-hydroxypyridine, in which a low resolution dye laser has been used to identify the spectral transitions of one form of the molecule in the presence of the other. Potential applications of the technique to other samples also will be described.

[a]Work supported by NSF (CHE-0618740).

[b]G. G. Brown et al. *J. Mol. Spectrosc.* **238**, 200-212 (2006).