ROOM-TEMPERATURE CHIRPED-PULSE FOURIER TRANSFORM MICROWAVE (CP-FTMW) SPECTRUM OF 2-METHYLFURAN

IAN A. FINNERAN and STEVEN T. SHIPMAN, *Division of Natural Sciences, New College of Florida, Sarasota, FL 34243*.

The microwave spectrum of 2-methylfuran has been measured at temperatures between 0 °C and 50 °C from 8.7–18.3 GHz with waveguide chirped-pulse Fourier transform microwave spectroscopy (CP-FTMW). Using the enhanced sensitivity of this technique relative to that of prior measurements from Stark-modulated instruments, we have been able to extend the assignments of the lowest energy A- and E-states from Norris and Krisher[a] to include transitions up to J = 60 and K_a = 35. We will also report on our progress towards assigning higher-lying states and compare the fit results to those from *ab initio* calculations.

[a]Norris, W. and Krisher, L., *J. Chem. Phys.* **51**, 403 (1969).