

## SEGMENTED CHIRPED-PULSE MILLIMETER-WAVE SPECTROSCOPY FOR ASTROCHEMISTRY

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The ability to detect molecules in the interstellar medium (ISM) is afforded to us by the collaboration of state-of-the-art observations, like from the Atacama Large Millimeter/submillimeter Array (ALMA), and high-resolution laboratory spectra. Here, we present our use of a commercial segmented chirped-pulse Fourier transform millimeter-wave rotational spectrometer to study simple oxygen-containing organic molecules. Our spectrometer operates in the region 75 – 110 GHz, providing an overlap with ALMA's Band 3 and allowing direct comparison of our laboratory spectra with observational data. We have measured rotational spectra of 1,2-propanediol[1, 2, 3] and methyl acetate[4, 5] in this spectral range at room temperature – both have been previously studied in the microwave and millimeter-wave regions. The rotational spectrum of the former in the 3 mm region shows eight different conformers to date. Spectral bandwidth overlap with ALMA Band 3 will allow for easier detection of new chemicals in the ISM.

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