CHARACTERIZATION OF ALCOHOL:WATER TETRAMERS AND PENTAMERS VIA CHIRPED PULSE FOURIER-TRANSFORM MICROWAVE SPECTROSCOPY

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In this presentation, the identification and characterization of alcohol and water tetramers and pentamers using Chirped Pulse Fourier-transform Microwave (CP-FTMW) spectroscopy is described. This talk will address calculating candidate cluster structures using ab initio techniques, fitting the observed lines to obtain experimentally derived rotational constants, and analyzing the splitting of these rotational states due to the internal rotation of methyl groups present in the clusters of interest. Continued work on the characterization of alcohol:water mixing will be discussed, as will other future targets of interest for this instrument.