THE MILLIMETER/SUBMILLIMETER SPECTRUM OF 3-HYDROXYPROPANAMIDE

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3-hydroxypropanamide ($HOCH_2CH_2CONH_2$), has primarily been used in drug synthesis and is an isomer of the amino acid β-alanine. Due to its structural similarity to β-alanine, it is a key target for tracing the formation of important biomolecules in astrochemistry. 3-hydroxypropanamide has a low vapor pressure and readily decomposes when heated to temperatures above $\sim 80^{\circ}$C. Therefore, no rotational spectroscopic investigation has yet been conducted. We report the rotational spectrum of 3-hydroxypropanamide collected from 140-460 GHz using a long-pathlength direct absorption millimeter/submillimeter spectrometer. To aid in its characterization, the gas sample was held at a static pressure of $\sim$ 40 mTorr at 70°C; these conditions could be held for several hours so that broadband spectra could be acquired. We will report in this talk on the 3-hydroxypropanamide spectra obtained and the progress of spectral analysis.