MICROWAVE SPECTROSCOPIC STUDY OF THE CO-H_2S COMPLEX

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The infrared spectra of the van der Waals complex between CO and H_2S were recently studied by Xia and McKellar.[a] Following this investigation, we have measured rotational spectra of several isotopomers of CO-H_2S using a cavity Fourier transform microwave spectrometer. Nuclear hyperfine structures due to the quadrupolar ^{33}S and ^{17}O nuclei were observed and analyzed. The resulting rotational and hyperfine constants were used to derive structural and dynamical information about the complex.

[a] C. Xia and A. R. W. McKellar, private communication