MICROWAVE OBSERVATION OF THE VAN DER WAALS COMPLEX O₂-CO

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FTMW spectroscopy has long been known to be a powerful tool in characterizing van der Waals complexes.⁴ Along with this, advances in microwave technology and computing have made complicated spin-interaction systems much easier to observe and characterize. One such system, O₂-CO has been observed for the first time on a CP-FTMW spectrometer operational in the 6-18 GHz region. Preliminary observations and calculations indicate a slipped-parallel structure. High level calculations are ongoing, including the construction of a 4D potential energy surface. Rotational assignments, along with any observed fine structure due to the \(^3\Sigma^+\) ground state of O₂ will be discussed.

⁴Stewart Novick, Bibliography of Rotational Spectra of Weakly Bound Complexes