

THE SUBMILLIMETER SPECTRUM OF Br₂O

HOLGER S. P. MÜLLER and EDWARD A. COHEN, *Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California 91109.*

The rotational spectra of the three main isotopic species of Br₂O have been studied in the submillimeter region. The combination of a relatively large A rotational constant along with small values for B and C give rise to transitions involving a large range of J and K_a quantum numbers in the observed spectral region. Precise rotational and centrifugal distortion constants have been determined. Quadrupole splittings are large and can be observed even for $J > 90$. The spectrum, molecular structure, harmonic force field, and quadrupole coupling will be discussed.

Time required: 15 min

Session in which paper is recommended for presentation: 7