

**S.p.17. PAUL, C.M.—Studies on molecular structure and properties using microwave and infrared spectral data —1983—Dr. C.P. Girjavallabhan.**

This thesis reports certain computational procedures to extract maximum amount of information regarding the geometrical structure and inter-atomic forces of simple molecules from experimental data on microwave and infrared spectra. A novel feature of these studies is the use of centrifugal distortion constants for the determination of the geometry of symmetric top molecules. The method developed here shows that reliable information of the molecular geometry can be carried out even when the microwave spectroscopic data on isotopic molecules are not available.