Abstract Submitted
for the OSF06 Meeting of
The American Physical Society

Intensity calculations of HCN molecules KAUSAR YASMIN, California University of Pennsylvania — Accurate spectroscopic data of HCN are required for many astronomical calculations and modeling. HCN molecules are present in the atmosphere of carbon stars and in galactic centers. Ro-vibrational energy levels and intensity calculations were carried out using the full coupled cluster model and radau coordinates. Accurate ab initio calculated potential energy surface[1] and dipole moment surface[2] were used for computation. The computed values were compared with Hitran[99].

Kausar Yasmin
Californmia University of Pennsylvania

Date submitted: 11 Sep 2006 Electronic form version 1.4