

**4. Cold molecules.....2 lectures (1hr 30m each)**

**Speakers: Prof. S. A. Rangwala (RRI)**

**(b) Experimental**

Formation of ultra-cold molecules from atoms

Photo-association

Raman Processes

Feshbach resonance mediated

Cold molecules from hot molecule sources

Trapping of cold and ultra-cold molecules (principles and techniques)

Manipulation of molecules

Cold trapped molecule detection (principles and techniques)

Cooling trapped molecules

Creation of the ro-vibronic ground state molecules

The physics with cold molecules