

**Thin film Process :** Silicon Thin Film deposition by PECVD technique.

**Equipment :** Multi-Chamber PECVD system

**Photograph :**



**Basic Principle :** PECVD is a process used to deposit thin films from a gas state to a solid state on a suitable substrate. Chemical reactions are involved in the process, which occur by creation of plasma of the reacting gases. The plasma is generally created by RF (AC) frequency discharge between two electrodes, the space between which is filled with the reacting gases.

**Capabilities :** Multi-Chamber PECVD system is capable of depositing Si thin films with high deposition rates using RF (13.56 MHz) and Very high frequencies (VHF) 27.12 MHz and 60 MHz. Intrinsic (i) type Si, p-type and n-type Si thin films can be deposited using multi-chamber PECVD system.

**Substrate Requirements :** Maximum Substrate area 4" x 4" with maximum thickness of 2mm and should withstand the temperature up to 300°C.