

Multi source Physical Vapor Deposition system and Parylene coater integrated in Glove Box



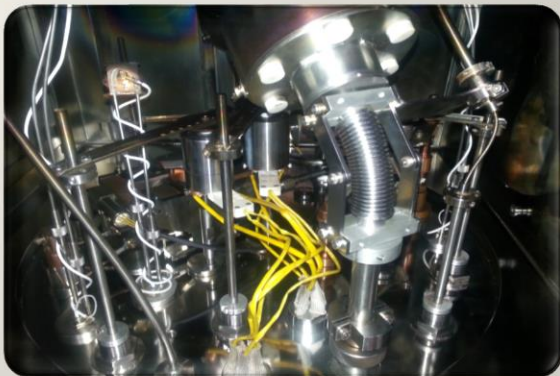
**Ante chamber , Glove box,
Parylene coater**

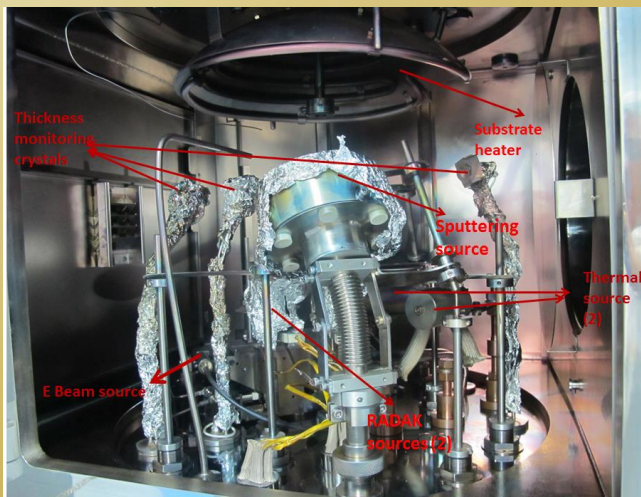


**Multi source PVD with turbo
molecular pump**

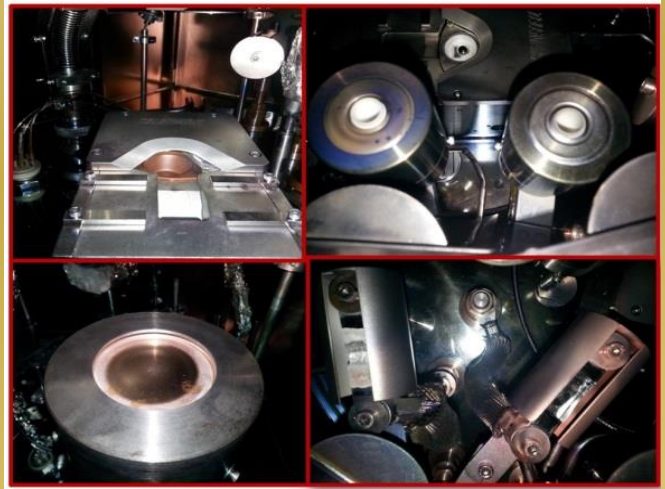
Salient Features

- ❑ Commissioned in class 10,000 clean room.
- ❑ Capable of depositing wide variety of materials starting from metals, organics, oxides to composites thin films.
- ❑ Supports co-evaporation and co-sputtering ability to cater the need of all the processes involved in building state of the art devices.
- ❑ RF and DC /pulsed DC magnetron sputtering with 3" target.
- ❑ RADAK (2 numbers) with Alumina crucible upto 1250 deg C.
- ❑ Thermal (2 numbers) with boat and filament type.
- ❑ E-beam with six hearths for source material.





Inside view of PVD chamber with multiple source

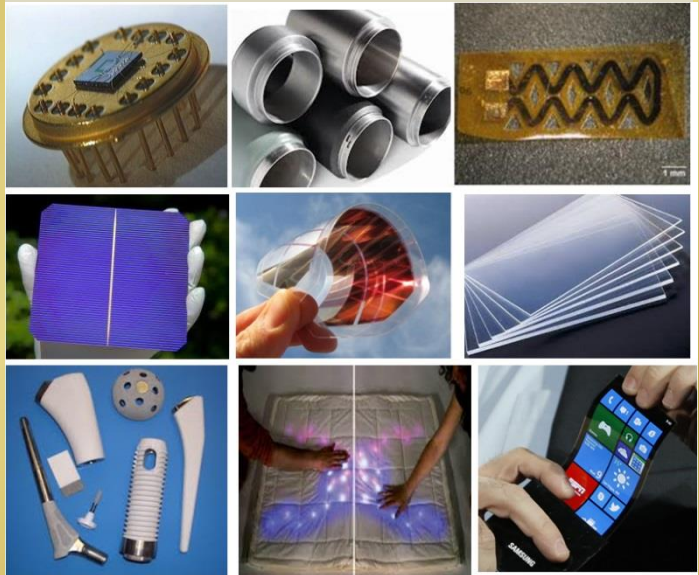


Electron beam evaporation, Thermal evaporation, sputtering, and RADAK source holders

Materials

- ❑ *Metals, oxides, Chalcogenides*
- ❑ *Refractory carbides like titanium carbide and borides like titanium boride and zirconium boride.*
- ❑ *Organic/Inorganic compounds*
- ❑ *Parylene*
- ❑ *Composite thin films as desirable*

Multi-functional Applications



Parylene coating:

- *Transparent for visible spectrum*
- *High melting point : 420, 290, 380, >500 0C for Parylene N, C, D, HT*
- *Thermal stability : Stable at 800C for 10 years, in oxygen free environment stable at 2200 deg C.*

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