PSG INSTITUTE OF ADVANCED STUDIES

Guidelines for availing - Multisource PVD coating Services

1. **Slot Allocation**: The allotted time for the deposition slot will be communicated via ***email only*** after receiving duly filled job request form (https://www.psgias.ac.in/wp-content/uploads/2023/06/Revised-analysis-charges-PSGIAS.pdf)

2. **Deposition Materials**: Users must provide new deposition materials after consulting with the equipment in-charge. Institute-owned targets can be used on ***chargeable basis***.

3. **Co-Deposition Facility**: Users must specify this in the request form, and the charges will be adjusted accordingly.

4. **Substrate Preparation**: Users are responsible for cleaning the substrates. Liquid samples or non-vacuum-compatible samples are not permissible.

5. **Service Availability**: Payments made are non-refundable under any circumstances. Refer to user charges (https://www.psgias.ac.in/wp-content/uploads/2023/05/Job-Requisition-form.pdf).

6. **Registration & Payment**: Prior registration with advance payment is mandatory to avail these facilities. External college, university, and industry users must pay the charges in advance before the characterization process is carried out.

   Contact Information: For inquiries, please contact Dr. B. Geetha Priyadarshini at bgp@psgias.ac.in .

PSG IAS

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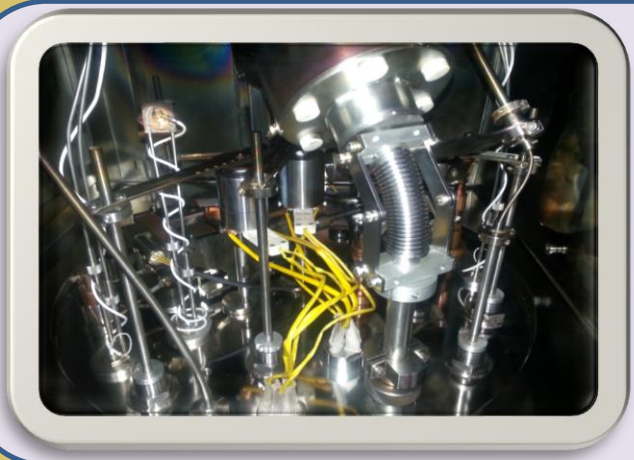
Multi source Physical Vapor Deposition system and Parylene coater integrated in Glove Box

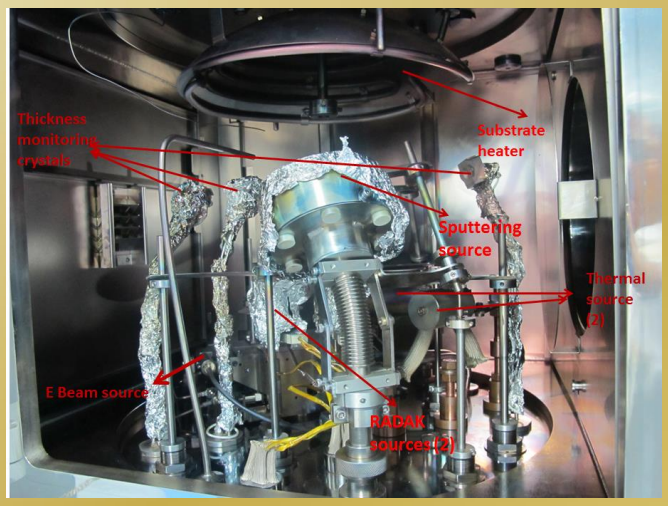
Ante chamber , Glove box, Parylene coater

Multi source PVD with turbo molecular pump

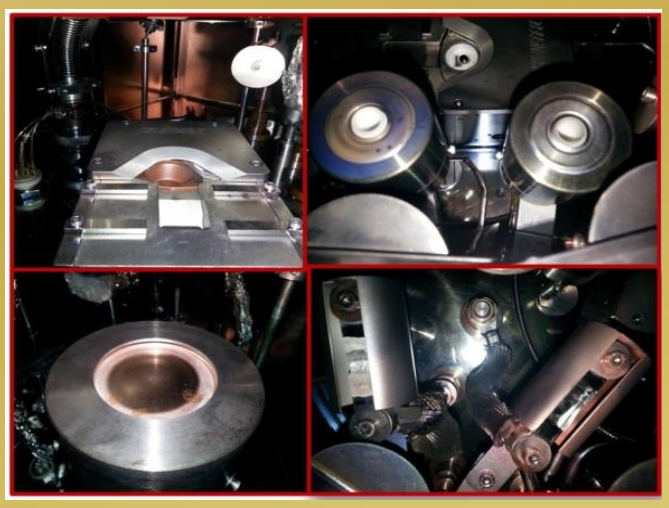
Salient Features

- 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

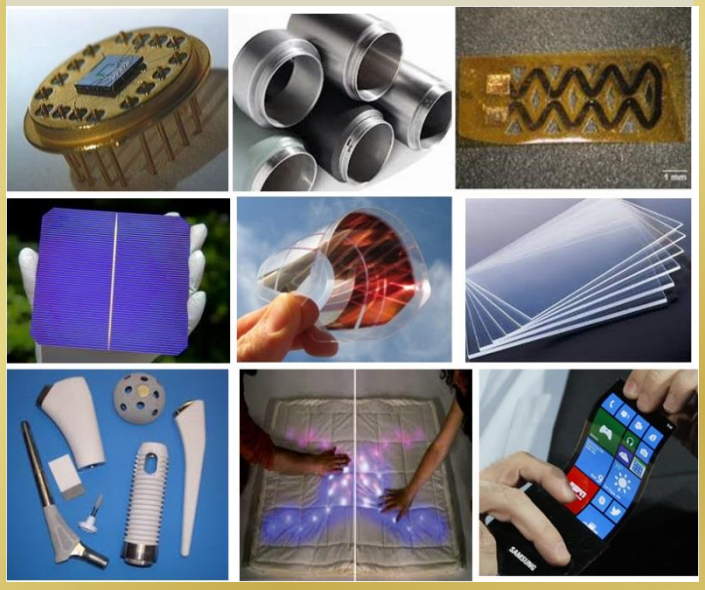


Electron beam evaporation, Thermal evaporation, sputtering, and RADAK source holders

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.*

Contact us

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