

# PLEIADES Cluster System

Customizable Multi-Chamber Array



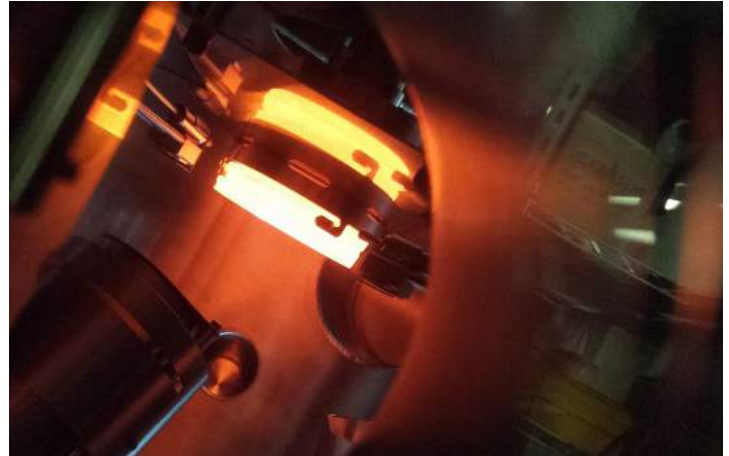
## Process Modules Available:

- Ion Beam Etching & Sputtering
- Atomic Layer Deposition
- Thermal Evaporation
- eBeam Evaporation - Lift Off
- Magnetron Sputtering Metals
- Oxide & Fluoride Evaporation
- Magnetron Sputtering Oxides & Nitrides

# PLEIADES CLUSTER *THIN FILM PROCESSING*

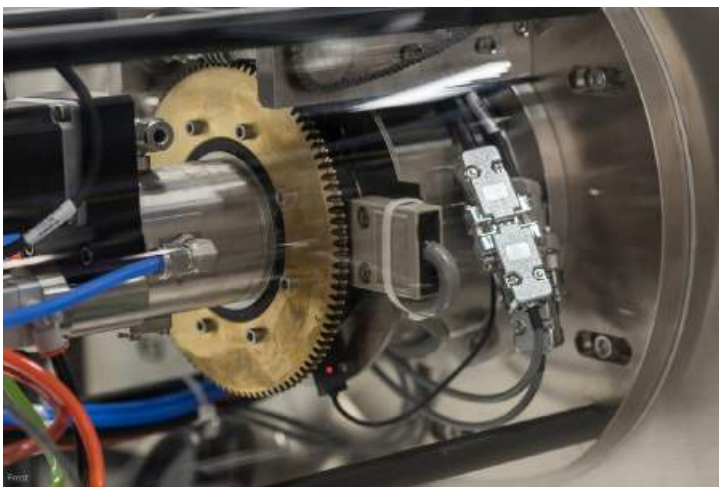
The Pleiades (Seven Sisters) System will accommodate your most demanding process requirements. This system allows you to maintain UHV conditions for transfer of your substrates to perform a wide range of thin film processes.

Pleiades can easily cool full wafers to  $-90^{\circ}\text{C}$ , while others may be held at temperatures up to  $1000^{\circ}\text{C}$  using our new "Helios" substrate heater.



## SYSTEM CAPABILITIES:

- State-of-the-art cluster system capable of producing and etching thin films of II-VI materials on up to 100mm wafers
- Central radial distribution chamber provides access to all satellite systems with telescopic transfer arm
- Load-lock chamber allows manual loading/unloading and storing of multiple sample carriers at one time



- Can be tailored to address corrosive and toxic properties of materials that can be accommodated in the machine



## HEATING AND COOLING:

- Direct water-cooled stage with ability to etch at multiple angles in a single automated process etch
- LN2 cooled stage (300K to 100K) with Incident Angle Tilt



- High temperature radiative Silicon Carbide heating stage, designed for operation in corrosive gas environments
- High-efficiency heating with exquisite radiative heat management
- Maximum 1150°C operating temperature, measured behind the sample/wafer carrier
- The sample/wafer carriers can be blank or hollowed out in the center (with direct exposure of wafer to the heater element)
- Both the heated and the water-cooled stages provide continuous rotation for maximized temperature uniformity across the wafer



## SYSTEM ADVANTAGES:

- Versatile design incorporating automatic thin film evaporation, sputter deposition and sample preparation modules, suited for dealing with low melting points, high vapor pressures and corrosive properties of demanding source materials
- Each technique is performed in a separate process chamber with its own dedicated power supply, control system and computer
- Configurable and expandable system architecture to include up to seven independent systems and fully motorized transfer capability



## PROVIDING LEADING-EDGE TECHNOLOGY SOLUTIONS

At Intlvac, we design and manufacture a wide variety of systems for Thin Film PVD and Etch. Our product line ranges from small R&D/pilot project systems to large production systems utilizing processes such as Ion Beam Etching, Sputtering, E-beam, Thermal Evaporation, Fiber-optic coating, and more! Call today to discuss your specific requirements.



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