

AJA 6 target e-beam Evaporator



The AJA 6 target e-beam evaporator which belongs to the ATC-Orion 8E ultra high vacuum (UHV) series is a powerful e-beam evaporator with RHEED gun. It has a multi-pocket linear UHV e-beam source with slide module consisting of six 15cc crucibles with manual indexing. The system also features:-

- FerroTec Carrera 5kW High Voltage power supplies.
- Genius Pro Controller with integral control sweep.
- Inficon SCQ310 deposition controller.
- Quartz crystal sensors.
- In-situ crucible exchange capable of exchanging crucible without breaking vacuum.
- Turbo-pumped vacuum load-lock.
- Brooks CTI-8 straight cryopump with compressor, temperature sensor.
- Water cooled substrate holder.
- Two 6" viewports with integrated shutter and polarized mirror for melt view.

Location: - Nanoelectronics Processing Lab (NanoE bldg, 1st floor)

Capabilities:-

- Evaporates one material at a time.
- Both automatic and manual deposition mode available.
- Multilayer deposition (No limit on number of stacks to be deposited)
- Adjustable source-substrate distance.
- Four pockets capable of in-situ crucible exchange.

Specifications:-

- High Voltage value :- 10KV
- Maximum current emission:- 500mA
- Base Vacuum :- 4×10^{-8} torr
- Gases allowed :- N_2

Target material, allowed substrates & materials:-

- Please refer to http://www.cen.iitb.ac.in/cen/online_modules/equipmentdetail.php?machid=300