

Trion Mini-lock Orion III PLASMA-ENHANCED CHEMICAL VAPOR DEPOSITION



NCF's Trion Mini-lock Orion III PECVD system comes with a vacuum load-lock that allows for isolation of the reaction chamber from atmosphere to reduce the impact of exposure to atmosphere between runs. The reaction chamber is pumped by a turbo pump and a 300-Watt (350-460 kHz) bottom-powered electrode. After passing the NCF safety exam, users can request training on this machine by sending an email to ncftech@uic.edu. Those not trained can request an NCF work service order by contacting the lab manager.

Location: Clean room-deposition bay

Training: 3-5 Sessions (Minimum-2 trainings and a checkout session)

Technical Specifications:

- Wafer Sizes: 2, 3, and 4-inch
- Min Reaction Chamber Pressure:
- Min Load-lock Pressure:
- Gases: N_2 , NH_3 , N_2O , 4% SiH_4 , $CF_4 - O_2$ mixture, $SiCl_4$
- Max Deposition Temp: 400°C