Alcatel A601E
Deep Reactive Ion Etcher (DRIE)

University of Notre Dame

Precautions

1 – LN2 is very sensitive and pressure changes constantly – you Must monitor your process while running. The needle valve on the machine is used to control temperature adjustments – do not adjust more than ¼ turn at a time.

2 – All Pumps must be turned off when finished

3 – PR is not allowed around the outer 1cm of the carrier wafer due to clamp ring

4 – Monitor Reflected powers during processing

5 – Venting the LN2 line can be dangerous if you are not paying attention. You do Not have to do this but it will expedite the cooling down of the chamber.

6 – Carrier wafers will etch very quickly – It is not the labs responsibility to supply coated carrier wafers.

Contacts

For problems, clarification of procedures, or general information pertaining to this machine please contact: staff@nd.edu

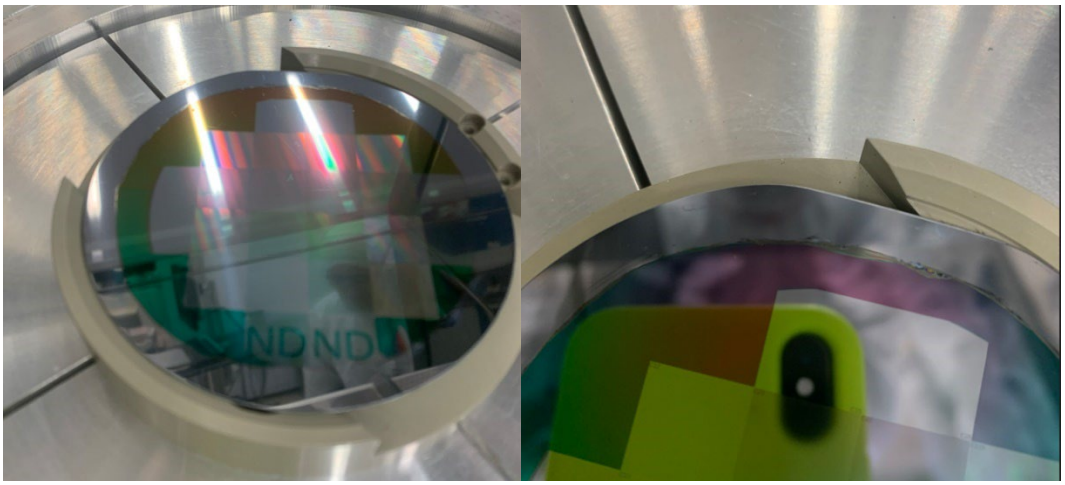
In Case of Emergency, Please Contact Notre Dame Security at

911

Operation Instructions:

1. iLabs – enable machine

2. Turn ON LN2
    a. Open WALL valve ~1/4 turn
    b. Do Not open all the way
    c. Vent line at machine to speed up the cooling process
3. Log into system
4. Manual tab – Pumping tab – Start chamber pumps
5. Manual tab – Pumping tab – start loadlock pumps
6. Manual tab – Pumping Tab – Start loadlock Venting
7. Open loadlock lid
8. Insert wafer with flat facing 1:00 position



9. Close lid
10. Process tab – select recipe – start
11. Wafer transfers into chamber and processes
12. When Finished – wafer will transfer back to loadlock and vent
13. Open lid and remove sample
14. Manual tab – Pumping tab – Start pumping loadlock
15. Manual tab – Pumping tab – Stop pumping loadlock
16. Manual tab – Pumping tab – Stop pumping chamber
17. Turn OFF LN2
18. Disable machine from iLab