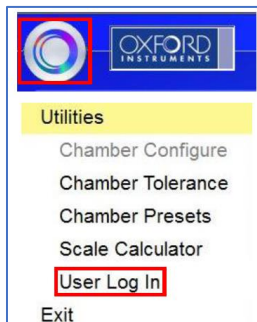


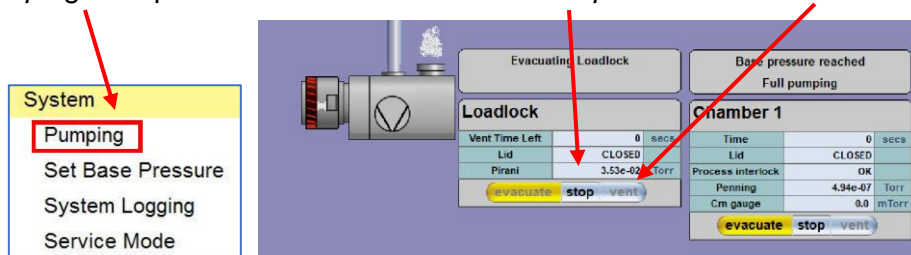
Quick Start Guide: III-V Etcher

This short document is for helping users remember how to operate the tool. It does not replace the SOP nor training.

1. Activate the tool on NEMO
2. Log in by clicking round button on top-left of screen, then click *User Log In*



3. Click *Pumping* on top-left of the screen. Then click *stop* and then click *vent* for the load lock



4. Open the load lock and place your sample inside, with the flat facing the pins



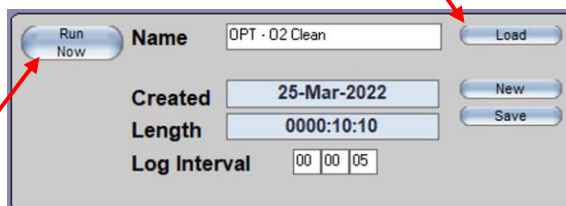
Note: This tool accepts 3" wafers

STOP!

Does your sample satisfy these conditions?

Is wafer edge clean?	Is wafer backside clean?	Will not deep etch polymers?	Will metal be exposed to plasma?
Wafers with a photoresist soft mask must have edge bead removal (EBR). 2 mm is OK.	Inspect backside by eye. If there are smudges, carefully wipe backside with a texwipe wetted with acetone then IPA.	Photoresist polymers are allowed in the tool as soft masks, but do not use this tool to etch several μm of polymers (ie. Polyimide, Parylene, etc.)	Do not etch metal nor use metal masks with this tool. If there is any metal on your sample, ensure that it is completely covered by your masking material.
<p style="text-align: center;">Why?</p> If dirty, the edge can get stuck to the wafer clamp. Then, the wafer may get shattered during arm loading or unloading.	<p style="text-align: center;">Why?</p> If the backside is dirty, then the wafer might stick to the bottom of the process chamber. This may cause the wafer to get shattered during arm loading or unloading.	<p style="text-align: center;">Why?</p> Excessive carbon contamination can cause buildup in the tool or also affect other users' process results. Instead, ICP DRIE may be used for deep etching polymers.	<p style="text-align: center;">Why?</p> Metal may get sputtered by plasma and then redeposited onto other parts of the tool. This may cause unwanted tool contamination or short-circuiting.

5. Close the load lock. Then on the pumping tab, click *stop* and then *evacuate* for the load lock
6. Go to *Recipes* on top left of screen and then click *Load*. Select your desired recipe.



7. Click *Run Now* and wait until your recipe is complete
8. After your recipe is finished, vent, then open the chamber as you did in step 3 & 4
9. Remove your sample. Load the Si cleaning wafer, with the flat facing the pins
10. Close the load lock and evacuate it as you did in step 5
11. Run the "OPT – O2 Clean" recipe or other appropriate cleaning recipes
12. Log your runs in the logbook (date, your name, etched material, recipe name, process time)

If you used an edited recipe, please write all gases, flow rates, pressure, and powers

13. Log out of the PC4500 software and NEMO. It is OK to log out while cleaning recipe is running