

UNT cleanroom Parylene Labcoter 2010 user Manual

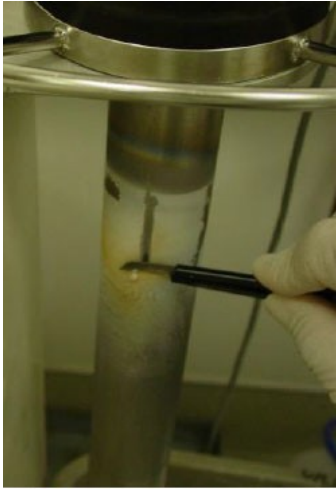
4/27/2020



System Operation:

1. Clean the cold trap:

Scrape off the thick waste parylene using a knife blade. Usually the thick film will flake off fairly easy.



Spray a thin coat of Micro 90 2% solution onto the cold trap and use wipe to clean the liquid.

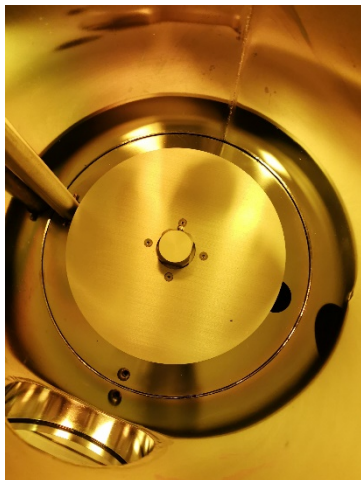
2. Create a Dimer boat with Aluminum foil by using the tube.
3. Weigh out the parylene Dimer. Weight the weighing paper first and then add Dimer onto it. Calculate the net weight of the Dimer.



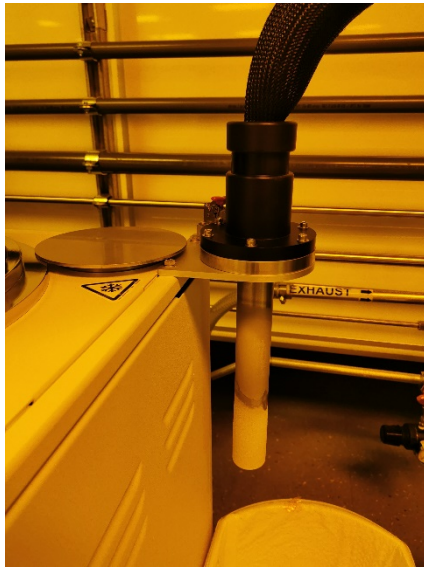
4. Use general usage computer to log in FOM to start your session by logging in parylene coater calendar.
5. Vent the system. The system is normally under low vacuum. Turn the “Vacuum” knob to “Vent”.



6. Load Samples and Dimer: Remove the top lid of the chamber and put sample on the disk holder. Put the Al boat in first and then load your Dimer with a scoop to the boat near the door.



7. Pump down the system: Put cold trap back into the system. Turn “Vacuum” knob to “Vacuum” to start the mechanical pump. The vacuum reading should go down quickly.



8. Turn on the chiller and wait for 45 mins before deposition.



9. Turn on "Furnace" and "Chamber Gauge" knob to "on" and "Vaporizer" to "on". Vacuum should be less than the set point 25 now. **Start the process by pressing the green button "Process Start/Stop"**.

Normally the process takes about 2 hours. Users can come back to do the shutdown. Make sure log enough time in FOM for the whole process!!

Shut down procedure:

1. Once the "Process start/stop" button flashes green, the process is over. Turn off "Furnace" and "chamber Gauge" knob to "off". Turn the "Vaporizer" knob to "off".
2. Turn off the chiller and wait for 5 mins before venting the chamber.
3. Make sure the vaporizer temp is lower than 90C. Turn the "Vacuum" knob to "Vent".
4. Once the system is vented and lift the cold trap to put it into the outside holder ring. Place SS plate onto the system hole.
5. Retrieve samples: Lift off the top plate of the chamber and remove samples from the plate.
6. Remove and discard the spent Aluminum Dimer boat from bottom of the system.
7. Put the top chamber plate back on and Turn the "vacuum" knob to "Vacuum" to pump down to 100. Then turn it to "Hold".
8. **Log out of FOM parylene labcoter calendar from general usage computer!!**