

NANOFABRICATION FACILITY

ADVANCED SCIENCE RESEARCH CENTER



July 12, 2024

Hello Nanofab Users and PIs:

Here are the ASRC Nanofabrication Facility updates for July:

Nanofab Research Showcase -- October 17, 2024

Mark your calendars for our first Nanofabrication Facility Research Showcase Day on October 17th, 2024. This will be a day of connection and celebration to mark the remarkable achievements of our facility users. We will be having invited talks, poster sessions, food and networking opportunities, and will also be publishing a book with all of your research accomplishments. We will be opening up registration in 2 weeks.

New Increased Access Hours - 9AM-6PM

We have extended our normal operating hours to 6:00pm, so users without after-hours access are now able to enter and work in the cleanroom from 9:00am to 6:00pm. Note: If you don't have after-hours access you will still need to ask staff if you can stay till 6:00pm. Whether you can or not will depend on how much longer staff will be at the facility that evening, but there will generally be coverage.

Elionix 100keV

The annual gun change for the Elionix 100keV tool will be from August 15th - August 29th. Please plan accordingly! (The 50keV will still be online during this time)

Toxic Gas Monitoring Maintenance Tuesday July 16th

- On July 16th our TGMS system will be serviced and there will be a test of the Toxic Gas Monitoring alarms.
- During this time the tools that use toxic gasses, namely the ICP-Cl and the PECVD will not be able to be used.
- NOTE: Though the horns will sound and the lights will flash, there will be no need to evacuate the lab or the building.

Metal E-beam Evaporator

- The materials were refilled today, and the crystal monitor was changed.
- Nickel (Ni) was added. Germanium (Ge) was removed.
- The tool is still pumping down, and we are looking to get it down to 10^{-8} Torr. The chamber should reach base pressure by Saturday afternoon/evening. We will put the tool back online then.

Organic Evaporator - Offline

The tool is currently offline as we track down a vacuum leak. We are waiting for a helium leak detector rental to be delivered. This will not arrive for another 1-2 weeks.

Oxford PECVD

The PECVD will be offline during the Toxic Gas Monitoring Tests on Tuesday July 16th from 12:00 PM to 6:00PM

Oxford ICP-Chlorine Etcher

- The ICP-Cl has had its annual maintenance and should be running normally.
- Note that a special clean is now required for BCL3 recipes. Please contact Emma if there are any questions on this.
- The ICP-Cl will be offline July 16th from 12:00PM-6:00PM during the toxic gas monitoring system maintenance.

Oxford ICP-Fluorine Etcher

- The ICP-FI has had its annual maintenance and should be running normally.

- We are anticipating a PLC and software upgrade for the ICP-F beginning in Late July (Likely after July 26th) that will have the tool down for another 4-6 weeks. Please plan accordingly.

Oxford RIE Etcher

The software on the RIE will be upgraded later this month. We will keep you updated when the oxford engineers do that upgrade.

Acknowledgements

Please remember to acknowledge the ASRC nanofabrication facility in your publication and let us know about exciting and new publications that utilize devices made in the facility.

This concludes the ASRC Nanofab updates for July 12th, 2024. Stay cool and hydrated this weekend!

Nanofab Staff