NANOFABRICATION FACILITY



ADVANCED SCIENCE RESEARCH CENTER

July 14, 2023

Hello Nanofab Users and PIs:

We have some important dates to keep in mind this next week -- please read the following newsletter completely.

Badger Systems Down Friday July 21st

On Friday, July 21st from 9AM till 1PM the Badger lab management software will temporarily be down while IT does some migration. The Nanofab tools will still be online and available for use, but there will be sign in sheets next to the tools to log your usage during this time. Please notify staff of any issues during this interval.

FY 2024 Nanofab Pricing in Effect August 15th

Pricing for the new fiscal year (FY2024) will go into effect August 15th, 2023. A list of the rate adjustments relative to current rates can be found <u>online at this link.</u>

We highlight the major changes here:

- 1. For CUNY academic users most pricing remains the same
- 2. For external academic users there is a 2-7% increase depending on the tools.
- 3. For all users there will be hourly charges for hood usage similar to the other tools.
 - a. For those doing overnight liftoff **(solvent hood only)** there will be a maximum charge to prevent prohibitively high costs.
- 4. For all users there will be an hourly rate for staff training time.

Oxford ICP-Fluorine Etcher

The RF Generator and relay have been replaced and are functioning. The engineer will return this Monday July 17th to finish the integration with the

computer software. We are hoping to have the tool back online for use early next week.

If you are interested in doing BOSCH etching on this tool please notify Jane Vogel so we can add this to the schedule. Until we have requests for Bosch mode we will keep the tool in standard ICP mode.

Oxford PECVD

The PECVD computer was upgraded and the load lock issues were resolved as of yesterday. The tool is now back online and available for use.

Oxford ICP-Chlorine and RIE-80

The computers were upgraded on both tools. Hopefully this will resolve the software issues we were frequently encountering. If anyone encounters a software error, please take a screenshot and report the issue in the main "ICP_RIE" channel in Slack.

AJA Organic Evaporator

We have made some important updates to the tool:

- 1. The crucible turret is repaired and it can now be homed
- 2. We have an updated SOP which is now at the tool
- 3. We have cleared all old recipes
- 4. We are doing sample runs to adjust the tooling factors this will make the reading of the film thickness on the crystal monitor more closely match what is measured post deposition. Meanwhile, please report any differences between the deposited film thickness and the measured film thickness on slack or by email to staff.

Please note: An issue has been reported today that at currents above 85mA the e-beam gun can shut down. We are ordering a replacement gun this week as it seems there may be a crack in the ceramic insulation. Meanwhile, operation under 80-85mA is still stable.

AJA Metal Evaporator

1. The issue with crucible misalignment has been fixed. The movement of the crucibles is now precise and repeatable resulting in the beam spot being centered in the crucible.

2. As with the organic evaporator, we are working to adjust the tooling factors. Meanwhile, please report any differences between the deposited film thickness and the measured film thickness on slack or by email to staff.

Job Opportunity at the ASRC Nanofab

We have an open position in the ASRC Nanofab as a Cleanroom Engineer/Scientist. Find the job listing online here. This is an opportunity to join a fantastic team at the ASRC. If you know of qualified and interested individuals please pass this link on.

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 14th. Stay cool and hydrated this weekend!

Nanofab Staff