

The Expanding World of Nanofabrication – *an update from NanoFabrication Kingston*

December 1, 2023

Good day,

You are receiving this important update as a user of NFK, as a supervisor of a user, or as someone who requested to receive these updates.

Technical problems

As you may recall from the last newsletter (or if you've visited NFK lately), there is currently a calamity of technical issues at NFK. This newsletter is a case of good news and bad news, so I'll categorize them accordingly:

Good news 😊

Spin coater. The new spin coater is installed and tested. So far, it is giving us nice, uniform coatings. Anyone waiting on spin coating to resume or start a fabrication project can schedule it as normal. This spin coater is quite different than the old one, so everyone will require new training on it. Please do us a favour and take good care of this one!

Deionized water. The pump and motor were replaced on the water purification system and it is working well again. You can use DI water from the taps as normal.

Bad news 😞

Reactive ion etcher (RIE).

Chiller: I cleaned a lot of construction-related dust out of the chiller and it sounds slightly better. I think it will work until I can replace the pump and motor, but preferably we would shut it down when not in use.

Chlorine: The new mass flow controller has arrived but is not installed yet, because...

Vacuum: We cannot pump down the chamber to the required vacuum level. We had a similar issue earlier this year, but now it is behaving like there is a real leak in the vacuum system. While I troubleshoot this problem, the RIE will be unavailable. Sorry for the inconvenience, I know several of you rely on this tool.

Badge reader. The new badge readers are installed at the entry door and gowning room door. Both should work with your security badge and the new FOBs the building will be transitioning to. However, they have had trouble generating data reports from the readers, so please continue using the paper log when you enter the gowning room until further notice.

Holiday break

NFK will be closed from **Dec. 18 at 3:00 pm** until **Jan. 2, 2022**. The equipment will be shut down during this period, so please plan your experiments accordingly. During the week of Jan. 2-5, annual maintenance activities will keep the equipment occupied at various times. Please email me ahead of time if you need access to specific equipment that week so I can plan the maintenance around your schedule, if possible. Some maintenance activities may continue beyond Jan. 5, if necessary.

Humidification

The new humidifier has been installed. Unfortunately, they ran into a problem during installation and there is currently no timeline for commissioning the new unit. Until it is up and running, keep an eye on the sensors in the cleanroom if your process is sensitive to humidity.

See you at the lab!

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