

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

October 10, 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.

Spin Coater

After years of abuse, the vacuum line on the spin coater finally got plugged with resist. I spent a few hours cleaning it out, but the vacuum at the chuck is still a bit weak. Until I find a more permanent solution, check the vacuum reading before you put a sample on and please make sure your sample is sealed well on the chuck. No one wants to see their sample fly away at 5000 rpm! As always, make sure your sample completely hangs over the chuck surface, and do not let resist go over the edge of your sample. Let me know if you have any questions.

Labels

Labels are important in a shared-user facility. It's really the only way other people know what something is.

It is especially important to label chemicals you leave in the hood – others won't know if that beaker of clear liquid is water or not.

Labelling samples is also important. Samples with no name in the desiccators or cabinets may end up thrown out. Unlabelled samples left out on work surfaces are even more vulnerable.

A wrong label can be worse than no label. As many of you know, we have a Petri dish containing pieces of silicon wafer that people can use for their fabrication. I found several pieces of wafer in that dish that are clearly not stock silicon. If NFK members cannot trust that all the pieces in the dish are what they should be, then there's no point in having this dish at all.

If you are unsure of what you should do with any waste materials, samples, or tools, please ask!

Bottle Caps

Please remember to close the caps on chemical bottles tightly when you're done using them. Over the past few weeks, I have found loose caps on a developer bottle, waste bottles, and resist dropper bottles. This is not only hazardous, but can ruin the chemical pretty quickly.

Please also remember to clean around the rim of a resist bottle before putting the cap back on. Resist dries out around the rim and will get particles in the resist, or it can even make the cap stick.

Shoes

For people who bring indoor shoes to NFK, I thank you! There is even a rack near the entrance where you can keep your indoor shoes at NFK if you like. What never ceases to amaze me, however, is how many people move on and forget they have shoes here. We now have two lockers full of sad, neglected, lonely shoes that users have left behind. If you think you may have some shoes at NFK and no longer need them here, please arrange to pick them up. If you can't find your shoes on the rack, don't panic – check the lockers!

RIE

The mass flow controller for BCl_3 has been replaced and this material is now available again for etch processes.

Humidification

The replacement humidifier has been ordered and will hopefully be installed by the time it gets dry in the cleanroom. Until it is operational, however, keep an eye on the sensors in the areas you are working if your process is sensitive to humidity.

See you at the lab!

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