

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

December, 2018

Good day,

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

Holiday break

Innovation Park and the NFK lab will be closed from **Dec. 21** at noon until **Jan. 2, 2018**. We are planning to shut down the tools over this time. If you are planning to use NFK over this period, **please let me know before Dec. 17th**. NFK after-hours policies will apply.

Equipment status:

Evaporator

The vacuum system has been having some problems, but we have replaced two valves and everything is back to normal! If you haven't used the evaporator since the summer, please ask me about what's new with it.

Maskless Lithography System

The good news is that the SF-100 maskless litho system has a brand-new lamp. The bad news is that whatever exposure time you used before September is now shorter. We have since re-characterized many resist thicknesses, so please ask me for advice.

Laser Micromachining System

The Oxford Lasers micromachining system suffered a disaster at the end of the summer, but it's now back up and running well again. The main difference is that there is a new power meter to measure laser power. Please ask staff for a quick demonstration when you use it for the first time.

Compressed Air

The building's primary air compressor is under repair, and until it's fixed, the air pressure is low and variable. Most of NFK's equipment uses compressed air in some way, so please ask staff about how this might affect your processing. Most of the time, the only significant change is that you may need to close the shutter on the evaporator by hand. The Raith e-beam lithography (EBL) system can be affected when the pressure falls, so we have shut down the gun until the compressor is fixed. If you need to use EBL or the Raith's SEM function, please give us two-days' notice to get the gun running and stabilized.

CMC Microsystems and NFK Management

In case you haven't heard, CMC Microsystems, the not-for-profit organization that manages operations of NFK, currently has no funding in place to operate beyond Spring 2019. CMC has given notice to Queen's University that the Agreement to manage NFK shall be terminated as of June 30, 2019. A plan is being formulated to minimize impact on services at NFK. To see how you can help, or for more information, please contact [me](#) or NFK Science and Management Committee members [Rob Knobel](#) (Queen's Physics), [Richard Oleschuk](#) (Queen's Chemistry), or [Craig Jeffrey](#) (CMC).

We want to hear from you

NFK is always interested in hearing about your research. Has your work at NFK led to a publication or conference presentation? If so, please let us know. We will post a citation to peer-reviewed articles that acknowledge NFK on our website. We also welcome feedback about our tools and services. Feel free to forward your questions, concerns, complaints, or praise to [me](#), and we will do our best to respond.

See you at the lab!

Graham Gibson

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