General

Stocks of QC beads, S16M & S17M size beads and 50x cleaning solution are located in the fridge behind you.

1) Instrument startup as first user of the day and detector calibration

Follow all steps as described in NanoFCM manual. Run QC beads with following laser settings: 488 nm laser @ 20 mW and 640 nm laser @ 40 mW (required only for 670/30 filter!).

2) Instrument handover to next user

If somebody is scheduled after your session please do the following steps before leaving the instrument.

1. Boost cleaning solution for >5 min.
2. Change to the "*250 nm Std FL SiNPs*" protocol. Boost the QC beads for 45 sec. Next, switch to "sampling" and record for 1 min. Finally, save the NFA file on: D:\Data_QC recordings.
3. Boost H_2O for 30 sec.
4. Keep on boosting H_2O and select Sheath Flow – Shutdown.
5. Ensure that there is no dirt visible in the flow cell (otherwise repeat step 3).
6. Select "Shut Down" in menu below camera.
7. Close the NanoFCM software and log off from the computer.
8. Keep instrument and computer running for next user!

3) Instrument hand over between users

Instrument was started by previous user and is still running.

1. Login to computer and start the NanoFCM software.
2. Follow all startup steps as described in NanoFCM manual.
3. Check if you will need to change the optical filter in the PC5 channel e.g. 580/40 ⇔ 670/30. Ensure the Nanoanalyzer is **not recording** (the "Aperture" light is off!) when changing filters.
4. Continue with "Set-Up For System Alignment" (page 4 of the NanoFCM manual).

4) Instrument shutdown last user of the day

1. Boost cleaning solution for 1 min.
2. Change to the "*250 nm Std FL SiNPs*" protocol. Boost the QC beads for 45 sec. Next, switch to "sampling" and record for 1 min. Finally, save the NFA file on: D:\Data_QC recordings.
3. Follow the complete "Daily Shutdown" procedure in the NanoFCM manual (last page).

Note: Ensure that the flow cell is clean after the 5 min run of cleaning solution. If you can observe any dirt in the flow cell please follow instructions in the trouble shooting session below.

Trouble shooting

If dirt particles are visible in the camera window run deep clean procedure:

1. Boost 1M NaOH with Sheath Flow – Closed for 10 min.
2. Continue boosting NaOH and apply Sheath Flow – Shut down.
3. Boost ddH_2O and select Sheath Flow – Purge.
4. Check the flow cell for remaining dirt in camera window (if dirt is still visible repeat step 1 – 3).
5. Align system with QC beads if you want to continue recording samples.