

Bruker microFlex LRF™

Starting:

1. Log in using the Excel™ workbook.
2. On the computer console, check the status of the **HIGH voltage**, and the **green IN/OUT** in the bottom right hand corner of the window. High voltage should be **OFF (red)** and **IN (green)**.
3. Use gloves to handle the target. The idea is to keep oils and salts from your hands off the target. This also means keeping your hands off the outsides of the gloves.
4. Press the **up arrow** button on the monitor to move the target holder out of the vacuum to the outer chamber. Open the door (it is spring loaded), and carefully place the target in the holder (sample side faces up). Shut the door by holding the handle as it goes down. Don't let it slam! This precaution is to protect a microswitch.
5. Press the **up arrow** button on the instrument to move the target into the vacuum. Follow the progress of inserting the target on the bottom bar of the computer window. The message goes from "The TOF device is being evacuated and has rough vacuum." to "High voltage is switched off." RESIST doing anything else with the program until "**high voltage is switched off**" appears. It takes 2-5 min to get the target in.
6. Once the **green IN** and the "high voltage is switched off" message appear, select the method you need. Choose the method by going to the bottom of the left corner of the flexControl window and clicking on the **Select Method** button. When a window comes up and says "The current method has been modified! Do you want to save it?" The answer is **NO**. The method window then appears. Selecting a method will set the parameters and turn on the high voltage. WAIT until the high voltage is on before making other adjustments! Sit on your hands!!!
7. When the method is loaded and the **high voltage** is on (**Spectrometer** tab), go to the **Detection** tab. Use the slide bar to set the mass range to be recorded. Note: This mass range needs to match the range you use for calibrating. Every time the range is changed, a new calibration is needed.

Data should be saved in a folder with your last name on it. The data name must take the following format: **D:\Data\CIC_Data\name\yyymmddx0n**. For example: D:\Data\CIC_Data\vestling\150904x03 is the third spectrum saved on September 4, 2015 by vestling.

Stopping:

1. Make sure the method is **RP_PepMix.par**. Make sure the **high voltage is switched off**.
2. Click the **up arrow** button to start the docking and removal process. When the sample target is ready to be removed from the instrument, **green OUT** will be showing at the bottom of the flexControl window. Remove the target, shut the door carefully, and then press the **up arrow** button on the microflex LRF to put the target holder in the vacuum inside the instrument. This keeps the holder dry and ready to use.
3. Log out on the Excel sheet.
4. Data can now be displayed and printed in flexAnalysis. To print, click the printer icon, and choose "Spectrum.Wisc (landscape)." Do not print spectra when the peak labels contain more than one decimal place unless you calibrated to more than one decimal place. (This last sentence is friendly advice on how to survive in a science department.)

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