Bruker MALDI-TOFMS Instructions

Rules

1) No sample preparation should occur in CB 103, prepare the sample plate in your lab
2) Do not exceed 200 laser shots/sample. The laser has a fixed number of shots it can do and once we hit it the laser must be replaced.
3) Any sample the gets on the instrument should be cleaned up immediately with isopropanol
4) When you leave the instrument make sure the sample carrier mechanism is in the IN position
5) Sign up for your instrumentation time

To collect data

1) Launch flexControl from the desktop
2) After the software is fully loaded look in the lower right hand corner to determine whether the sample tray is IN or OUT.

It should be left in the in position when your done analyzing samples for the day.

3) click the eject/insert button (lower left side of window looks like a solid triangle over a line) to eject the sample carrier if it is IN
4) open the sample compartment and place your sample plate in the compartment
5) go back to the software and press the eject/insert button
6) wait for the insertion process to complete
7) load a data acquisition method by clicking the **Select…** button

LP : linear positive (enhanced sensitivity for positive ions)
LN: linear negative (enhanced sensitivity for negative ions)
RP: reflectron positive (enhanced resolution for positive ions)
RN: reflectron negative (enhance resolution for negative ions)

8) Do not modifiy or save over existing methods
9) using the mouse click on the gray circle were your sample is located, this will move the laser and camera to the sample
10) using the mouse in the camera window click on a spot that you want to shoot
11) Click the Start button to begin data collection
12) if you do not see any ions increase the laser power using the slider to the right of the camera window
13) if your baseline is not flat decrease the laser power
14) save your data **File → Save Spectrum to File As…**
15) repeat steps 9 through 14 until all your samples are analyzed
16) eject the sample plate by clicking the eject/insert button
17) open the sample compartment , remove the sample plate, and then ***gently*** close the sample compartment (the latch is made of plastic and will break if you let it free fall)
18) press the sample plate eject/insert button to move the sample carrier into the IN position and then close the flexControl software

To analyze data

1) Launch flexAnalysis from the desktop
2) Open your data File → Open Single Analysis…
3) Navigate down your data folder until you get to fid file
4) Click on **Find Mass List** button to label peaks with their corresponding masses
5) Print data by going to **Report → Print…**
6) Close the software when you're done