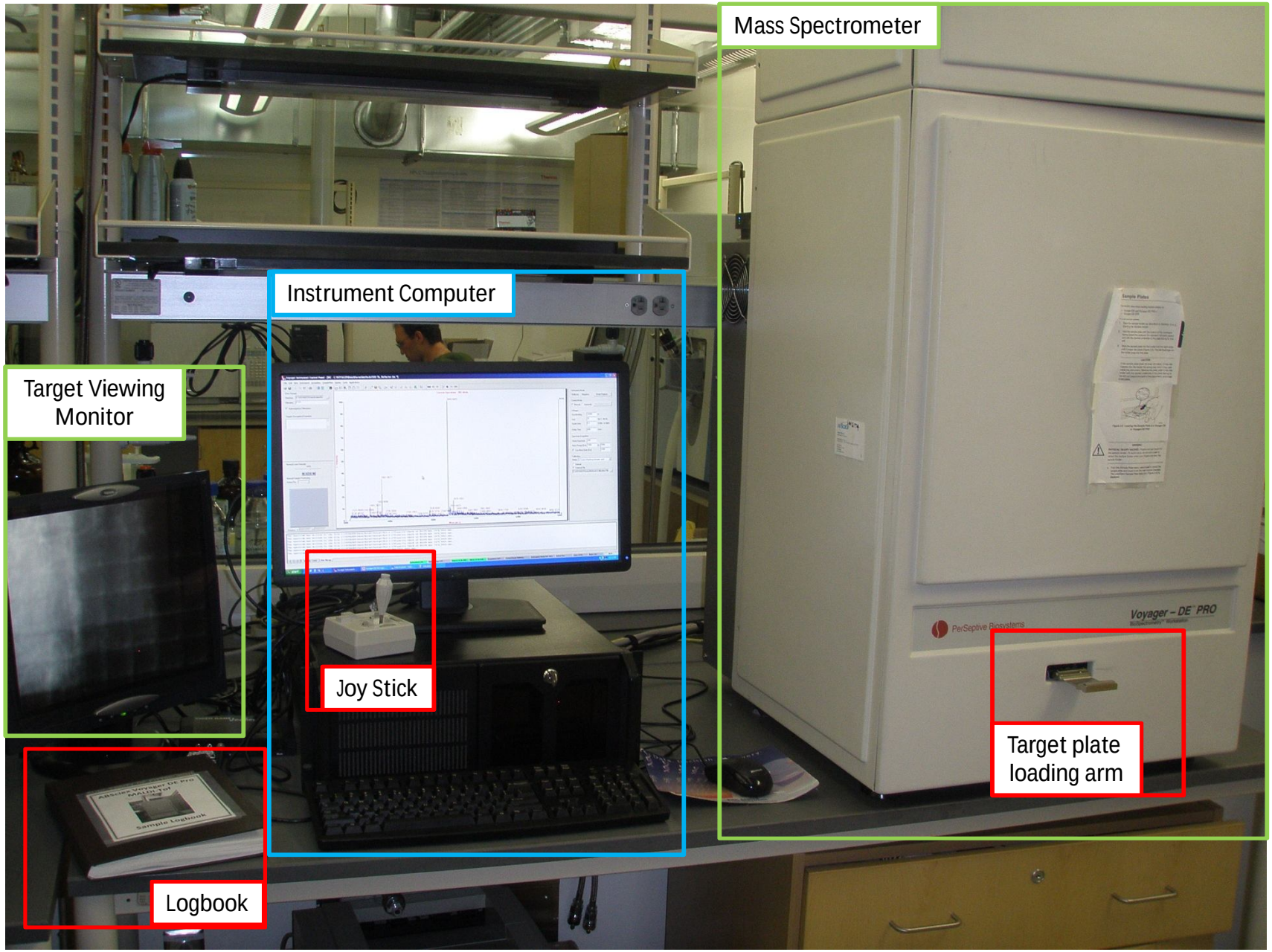
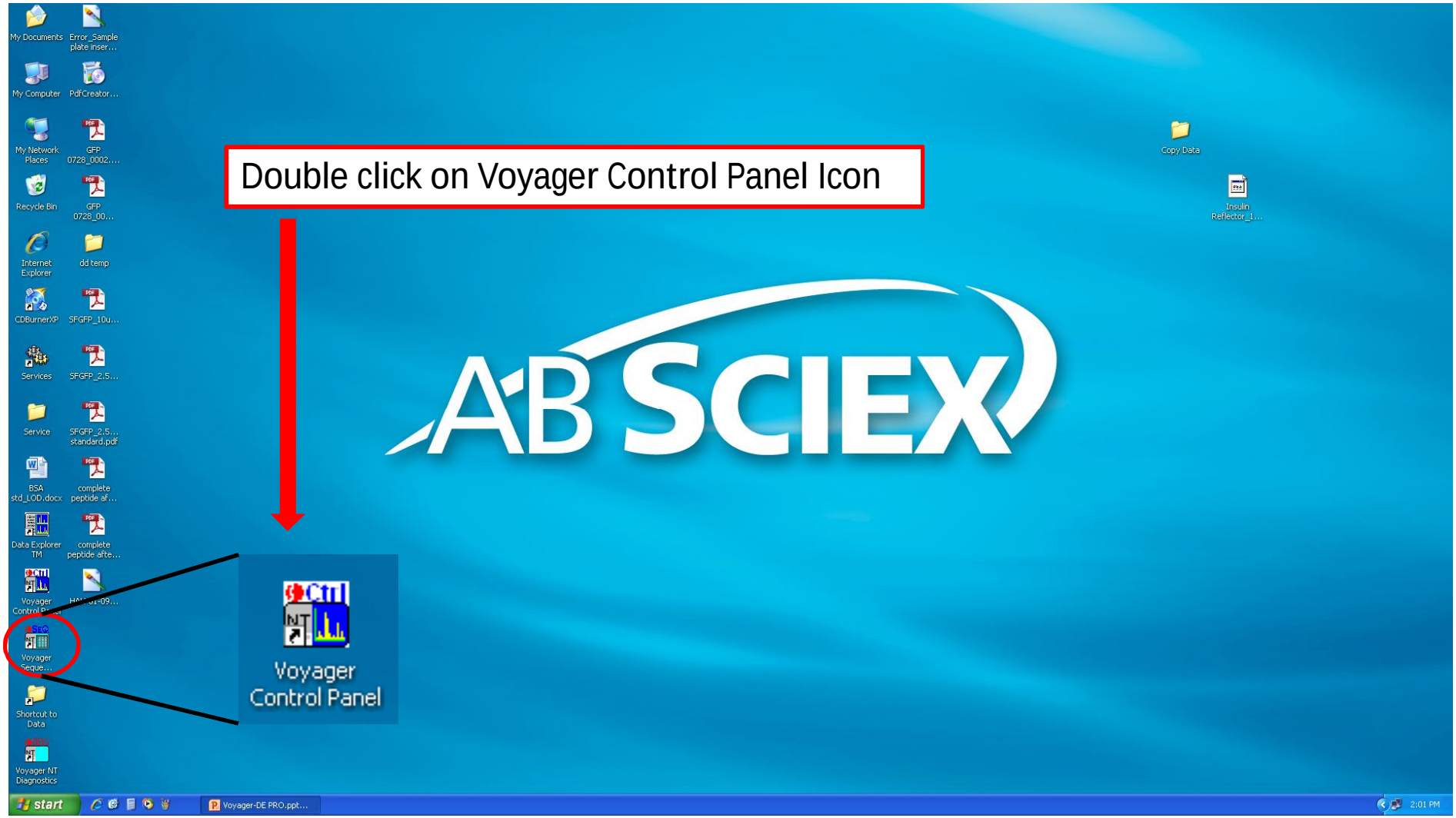
Voyager-DE PRO
ABSciex

Instructional Guide
prepared by Emanuel Schreiber
May 28, 2015

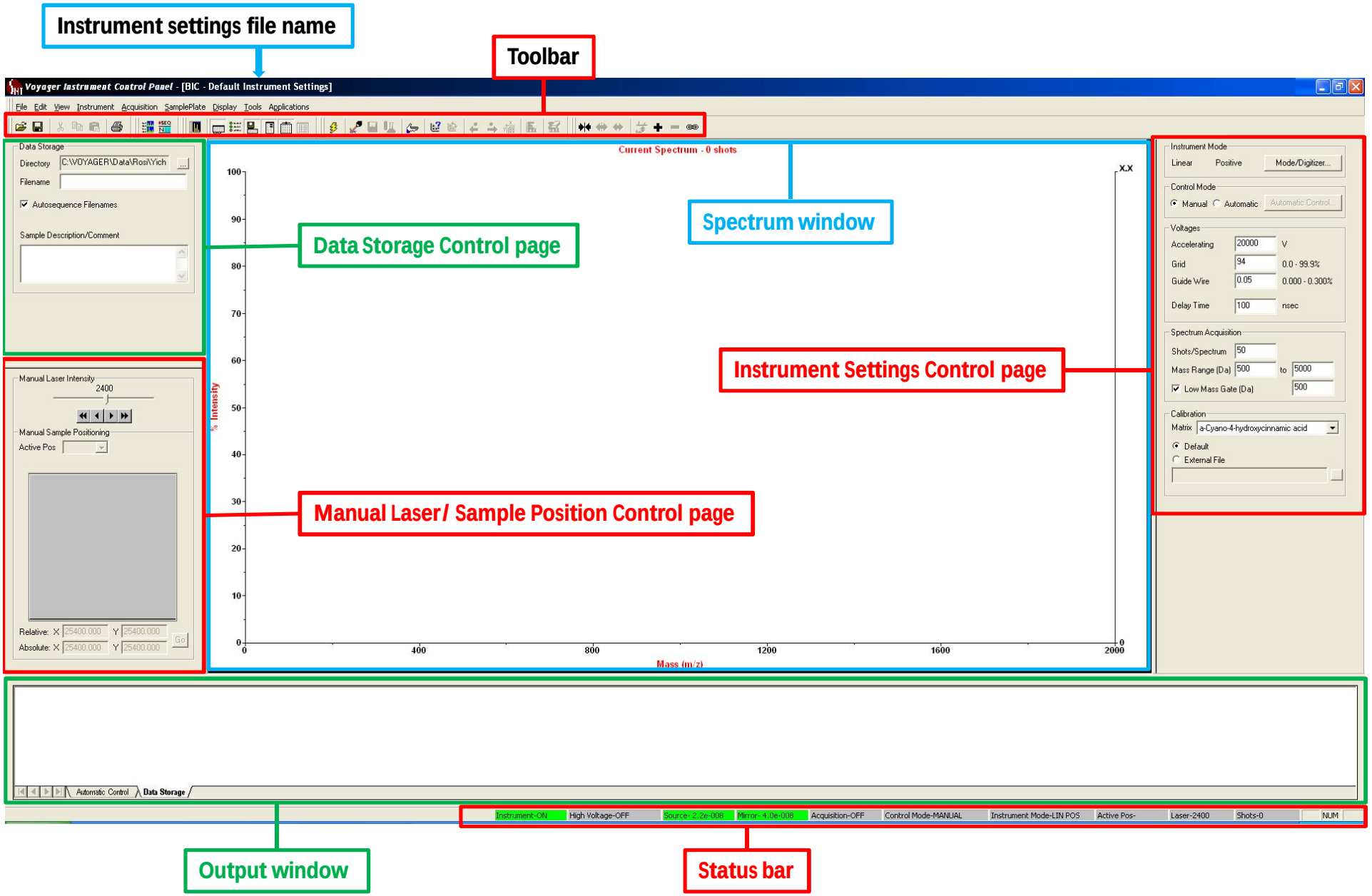
The MALDI-Tof System



To Start the Voyager Software



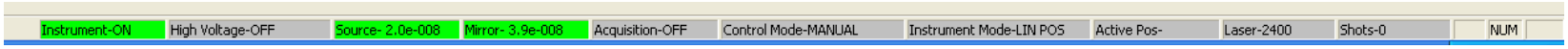
Instrument Control Panel



Before running instrument

- **sign in logbook**
- **check the status bar**

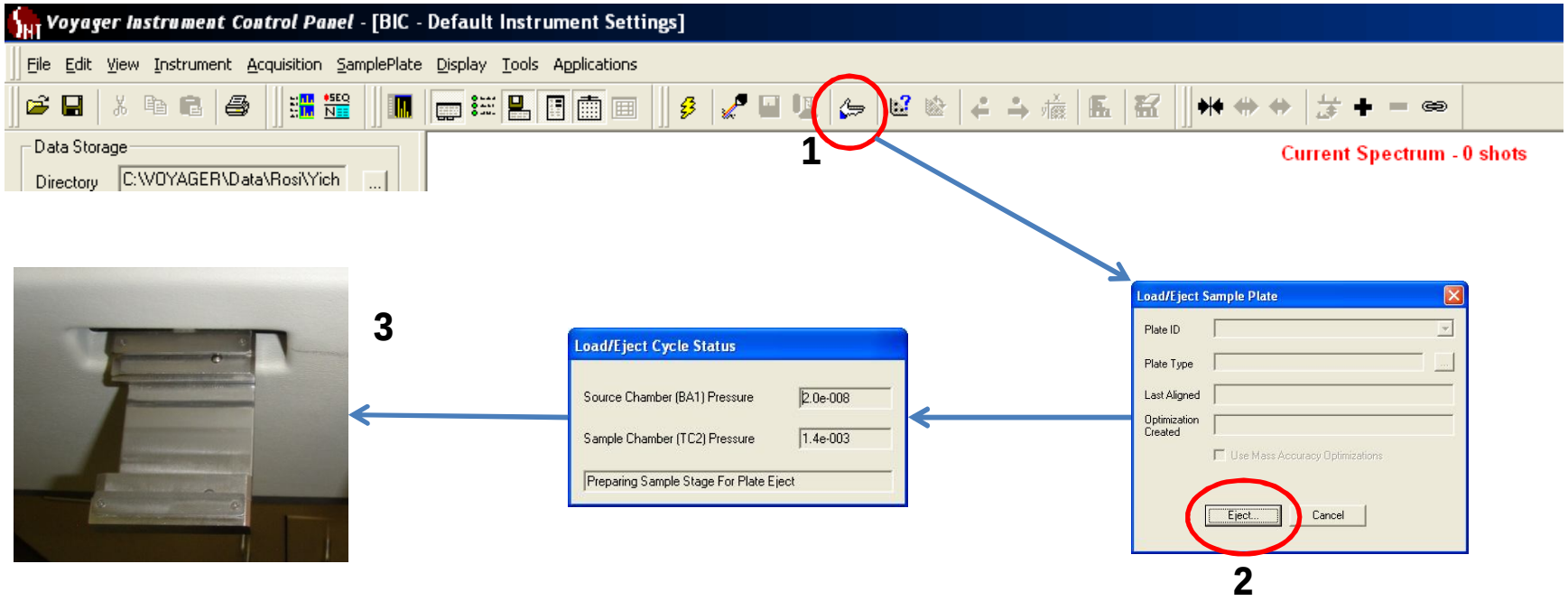
1) Instrument-ON
2) High Voltage-OFF
3) Vacuum: Source (green) less than e-06
   Mirror (green) less than e-07



1 **2** **3**

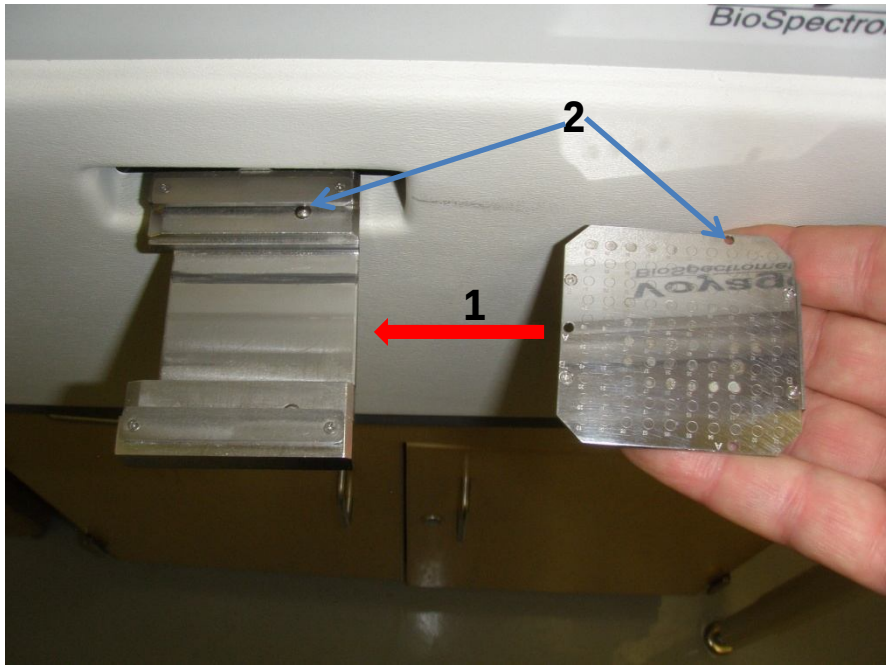
Ejecting MALDI Plate Holder

1) Click on “hand” icon on tool bar.
2) Click on Eject… button.
3) Holder will be exposed.



Sliding plate onto holder

1) Slide plate into holder (from right to left). NOTE: Well numbers on plate will be upside down as you look down at plate.
2) Plate will “snap” into place when balls aligns with holes in plate. Base on right side.
3) IMPORTANT make sure plate is in holder correctly, or the plate may fall off holder inside instrument. (You don’t want this to happen)



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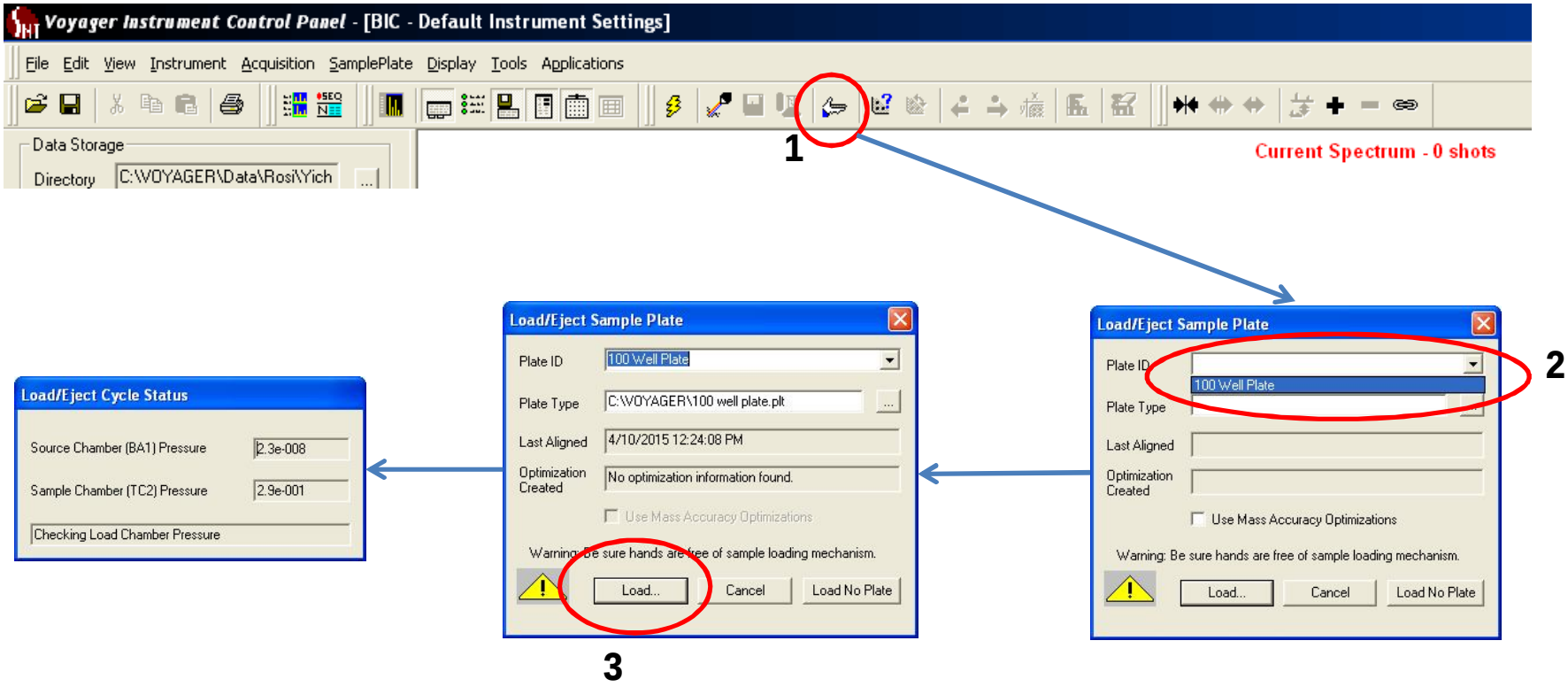
Loading MALDI Plate

1) Click on “hand” icon on toolbar
2) Select Plate ID, 100 Well Plate.
3) Click on Load… button. Plate will then move into instrument.

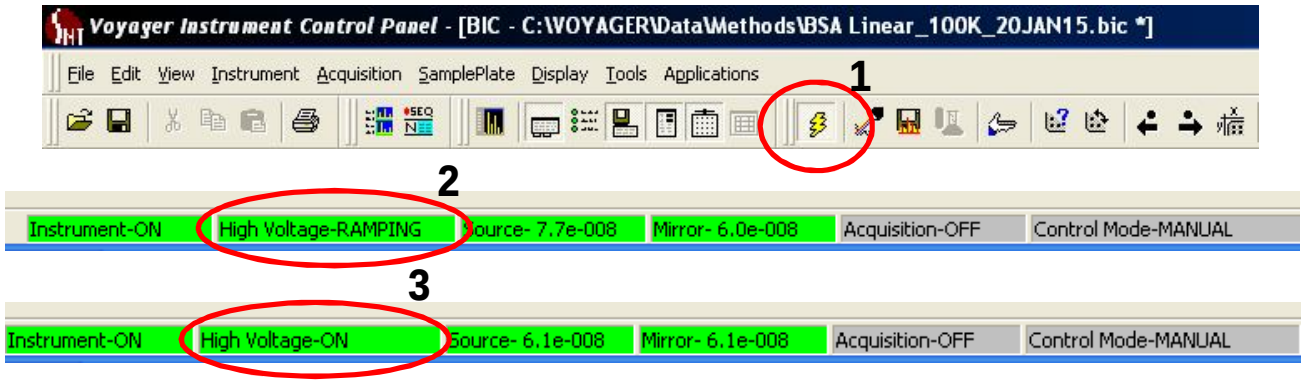


Running a Sample

A. Turn on High Voltage
B. Load instrument method
C. Input sample information
D. Move target into position
E. Fire laser and collect data
F. Save data
G. Remove plate

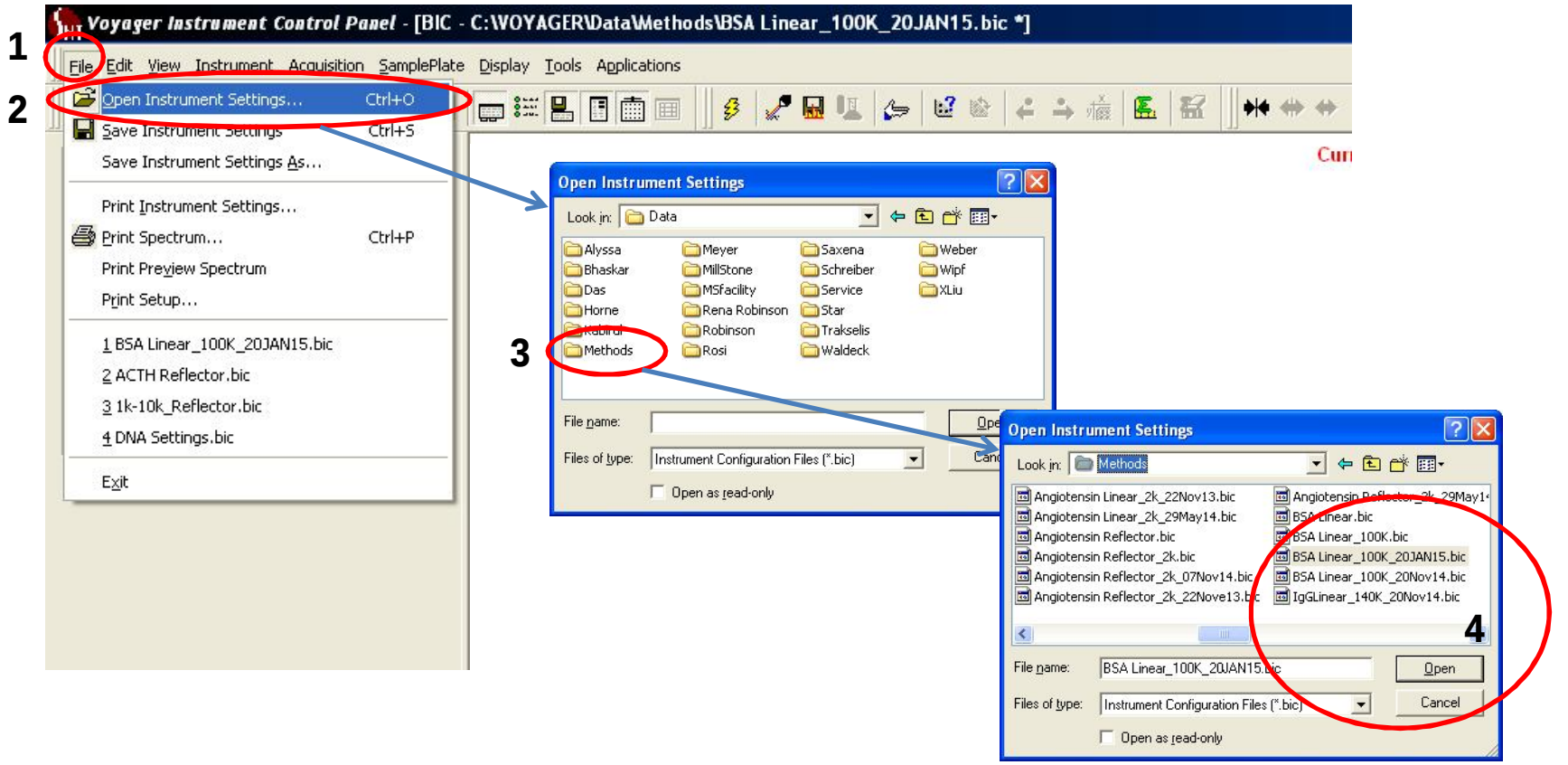
A) Turning on the high voltage

1) Click on the high voltage icon on toolbar.
2) High voltage will ramp up.
3) Wait till high voltage is finished ramping.

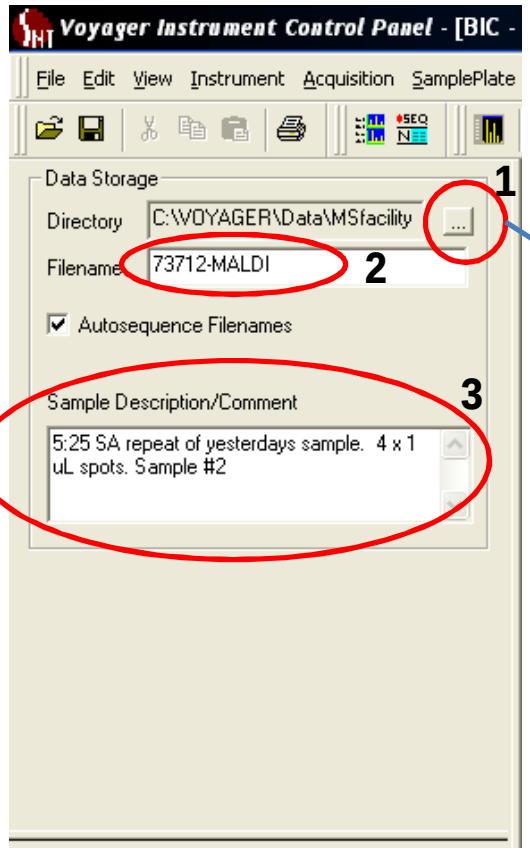


B) Load instrument method

1) Click on File option on menu bar.
2) Select “Open Instrument Setting…” from drop down menu.
3) Methods are stored in the Methods folder under Data.
4) Select method and open file. (methods may also be saved in your folder)



C) Input sample information

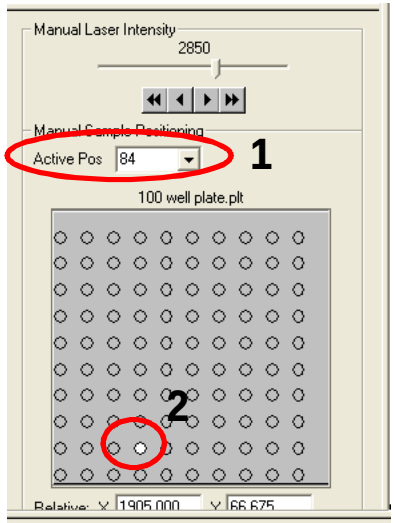


1) Select a directory (you should create a directory with your name under your advisor's directory).
2) Fill in filename.
3) Fill in sample description.

D) Moving target into position

Three methods for moving target:

1) Use active position dropdown or type well #.
2) Click on well in picture of plate.
3) Use joy stick to move target manually.



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E) Firing laser and collecting data

Two ways to fire laser

1) Use button on joy stick handle.
2) Use the acquisition start/stop icon on toolbar.

Collecting data

3) Laser will fire for the number of shots specified in method.
4) Move target around in well so that the laser is not hitting the same spot in well the entire time.

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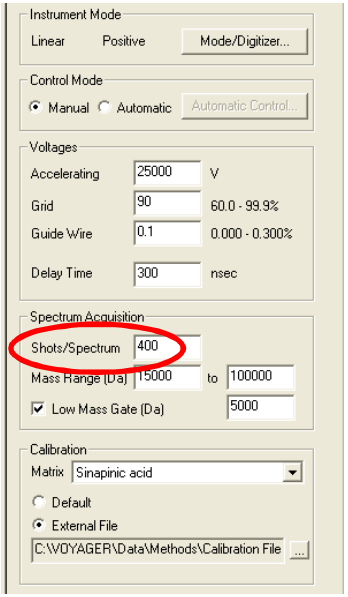
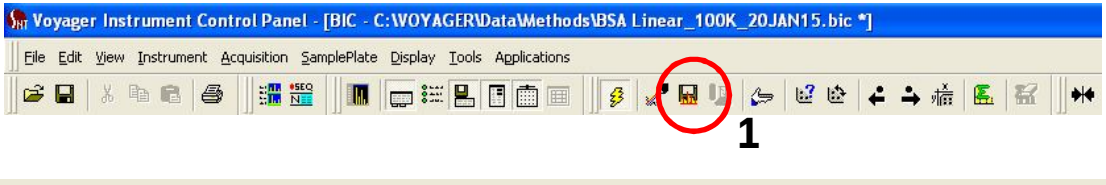
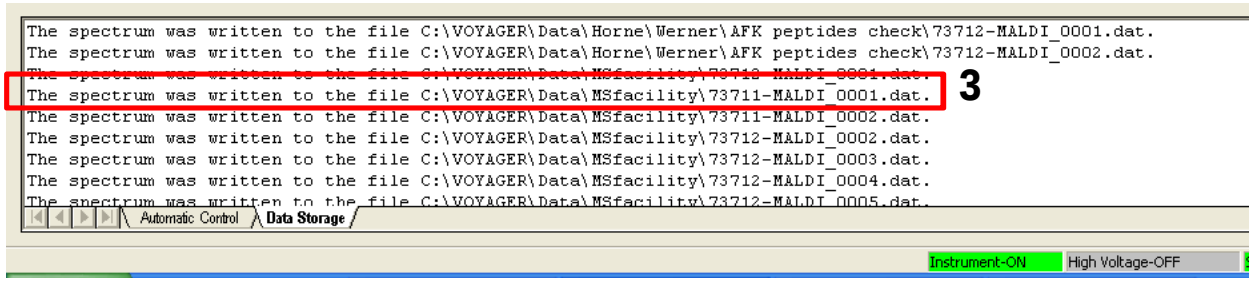
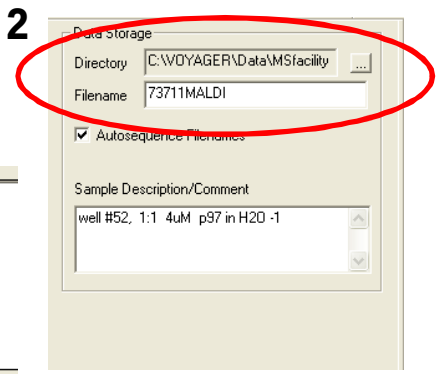


F) Saving data

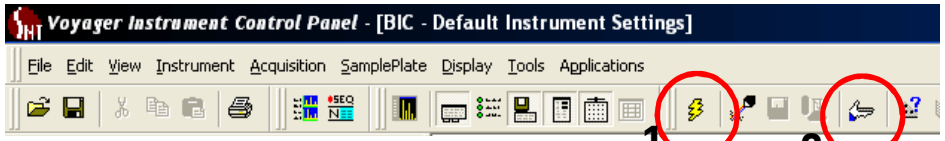
1) Click on save data icon on toolbar.
2) Data will be saved into directory and file specified in the data storage control page.
3) Confirmation of file storage will appear in the output window.

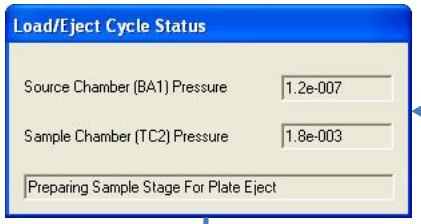


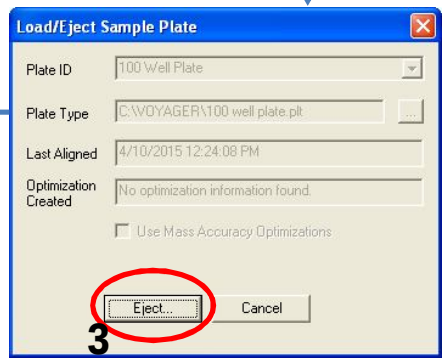




G) Removing plate







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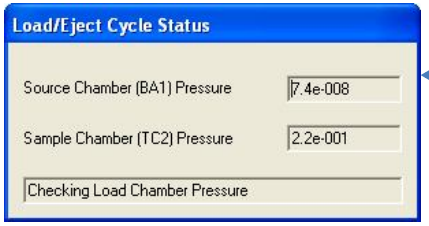
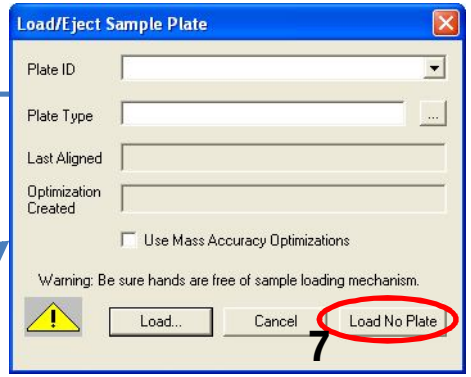
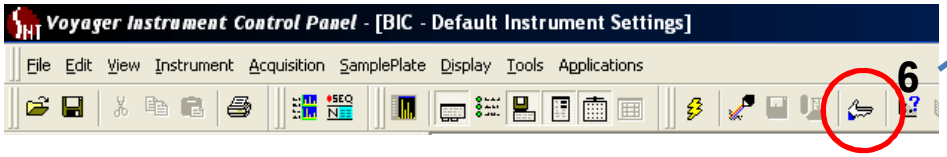
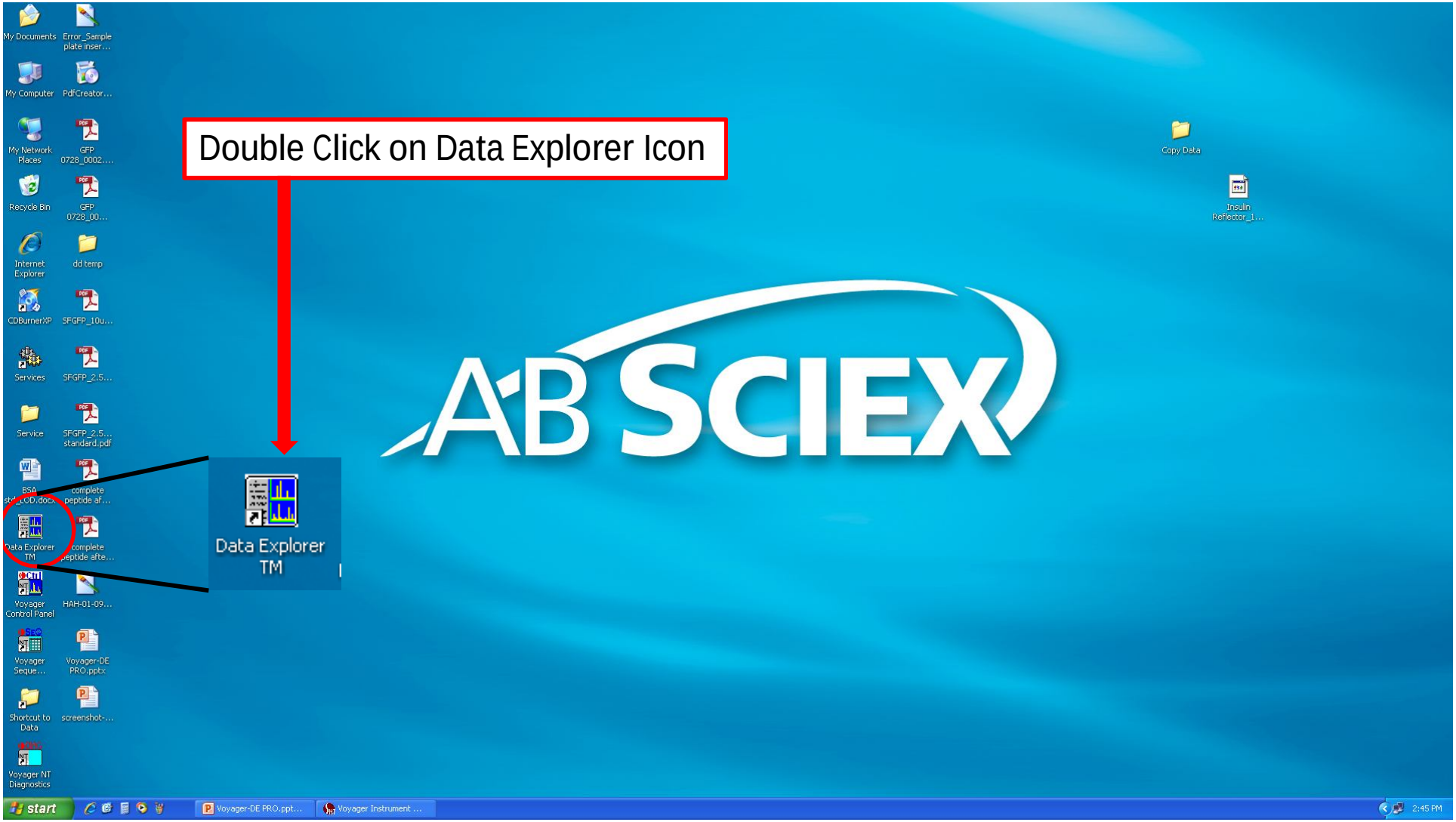
1) Click on the high voltage icon on toolbar. Wait for voltage to turn off on status bar.
2) Click on “hand” icon on tool bar.
3) Click on Eject… button.
4) Holder will be exposed.
5) Slide Plate out of holder.
6) Click on “hand” icon on tool bar.
7) Click on Load No Plate. Holder will then move inside instrument.



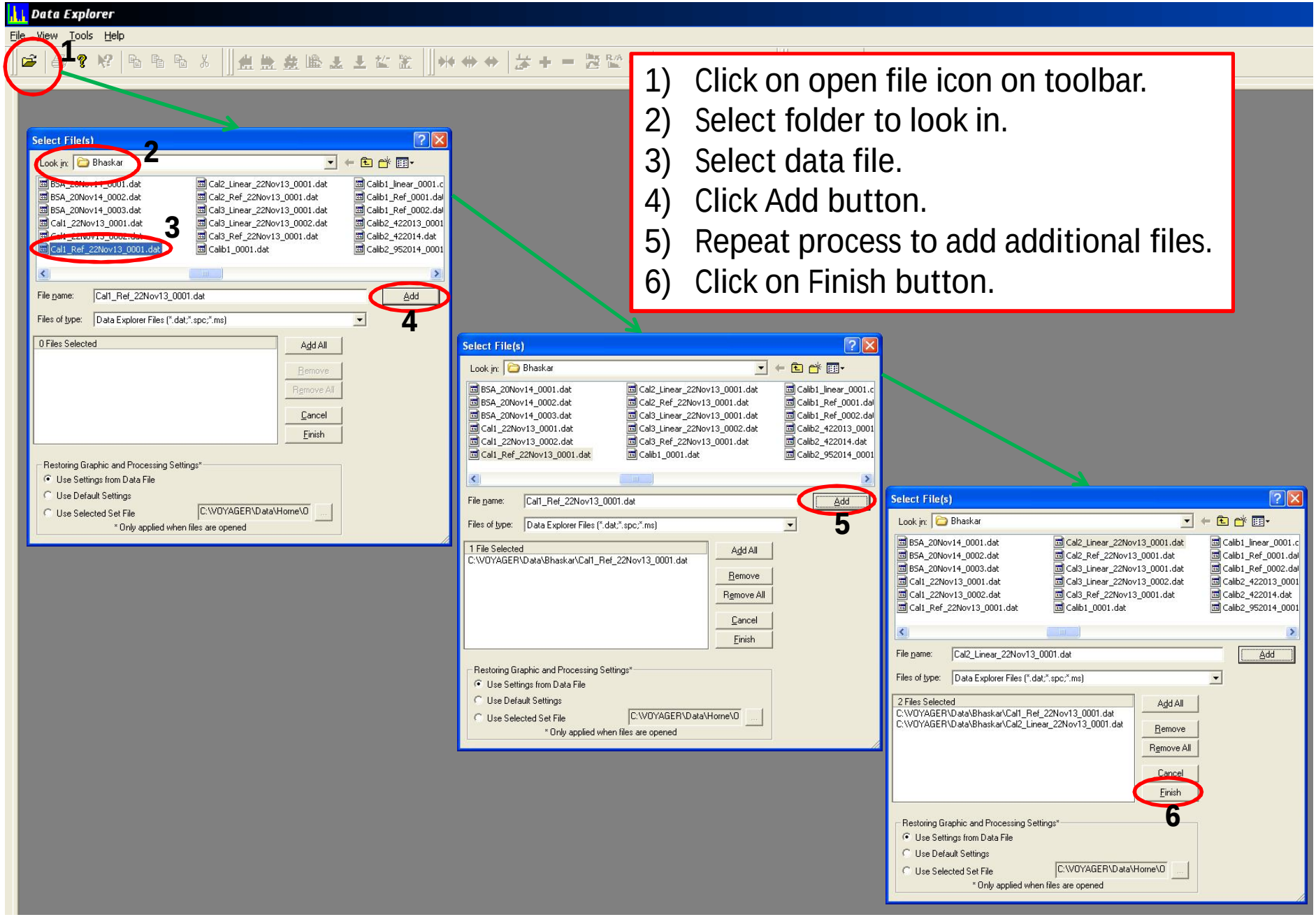




Viewing Data



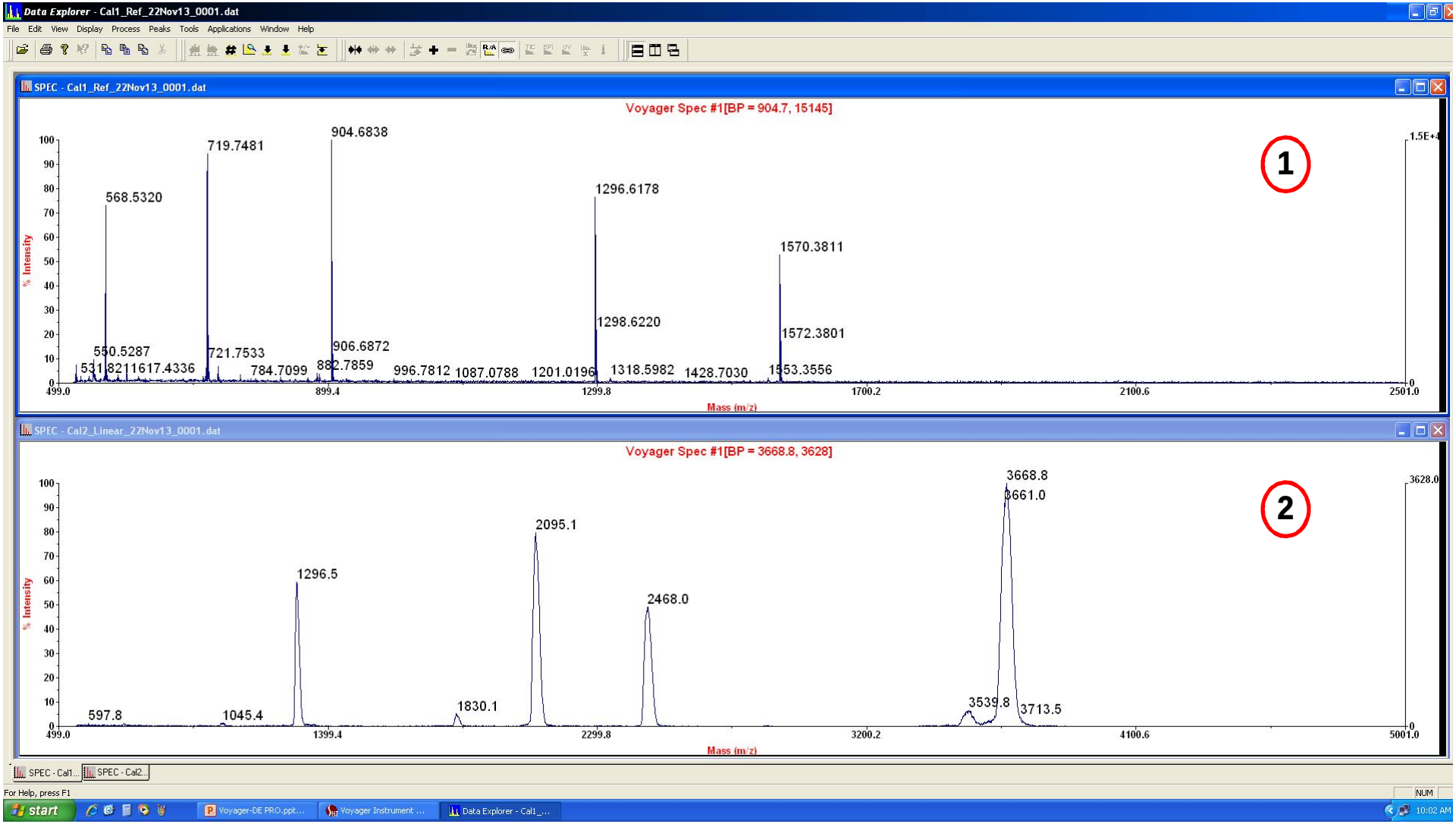
Opening Data Files



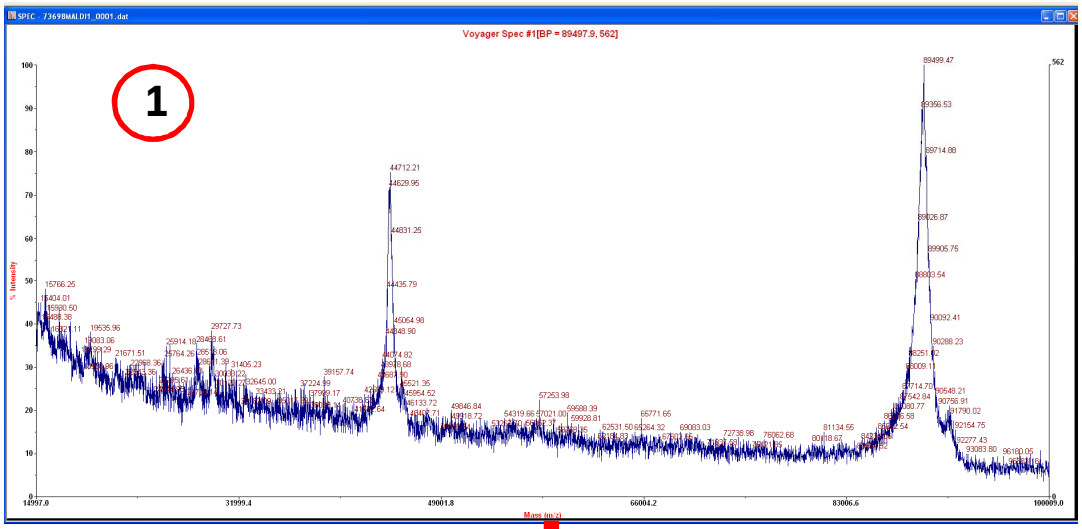
1) Click on open file icon on toolbar.
2) Select folder to look in.
3) Select data file.
4) Click Add button.
5) Repeat process to add additional files.
6) Click on Finish button.

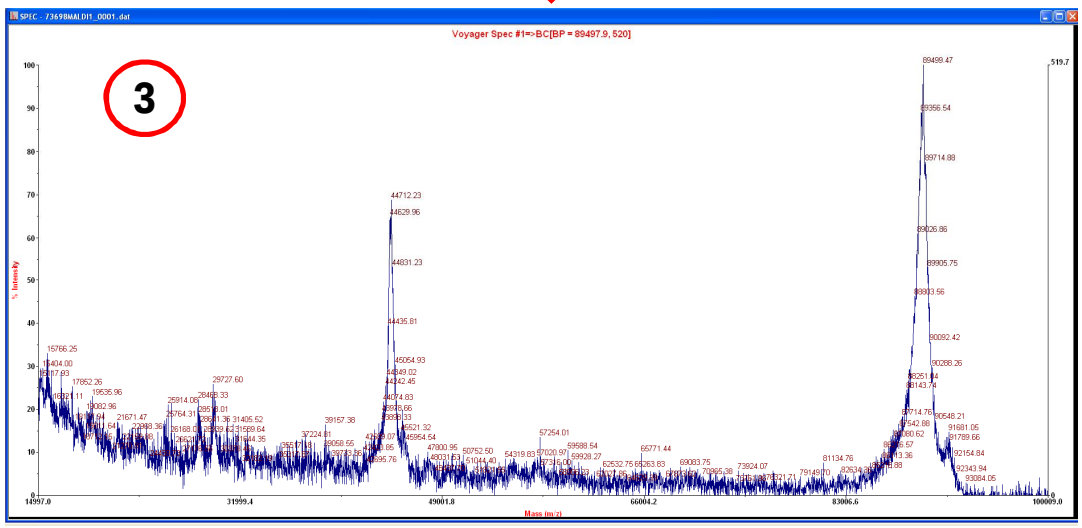
Data Explorer

Example of two data files opened.
1) Cal Mix 1 in Reflector mode.
2) Cal Mix 2 in Linear mode.



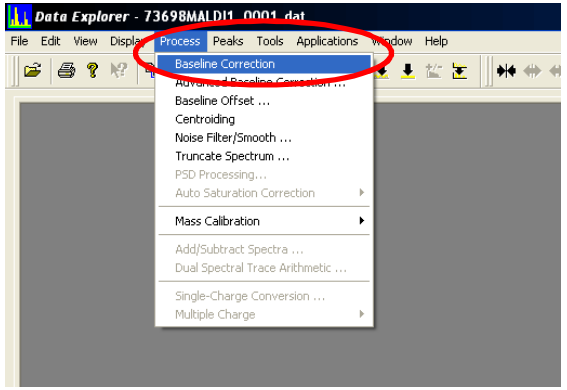
Baseline Correction



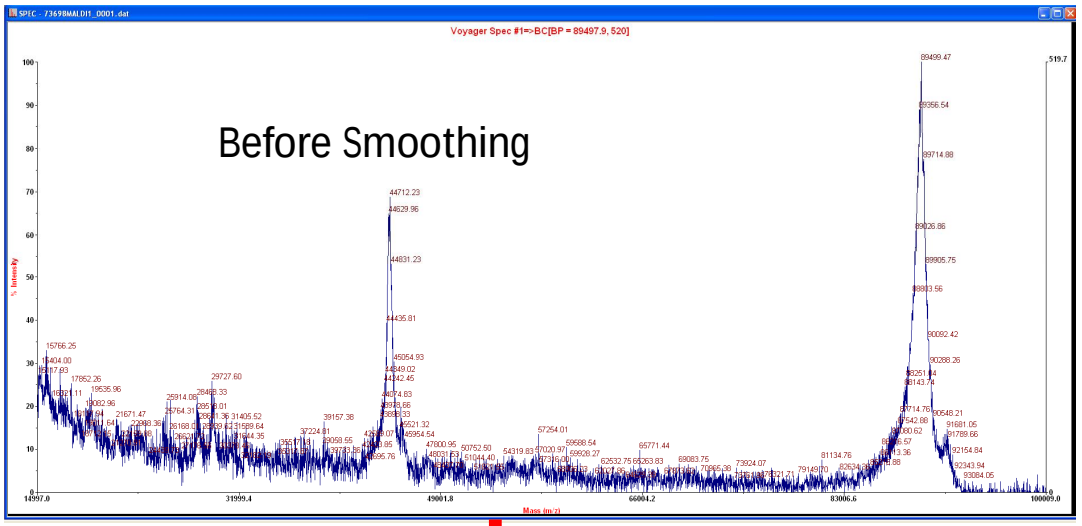


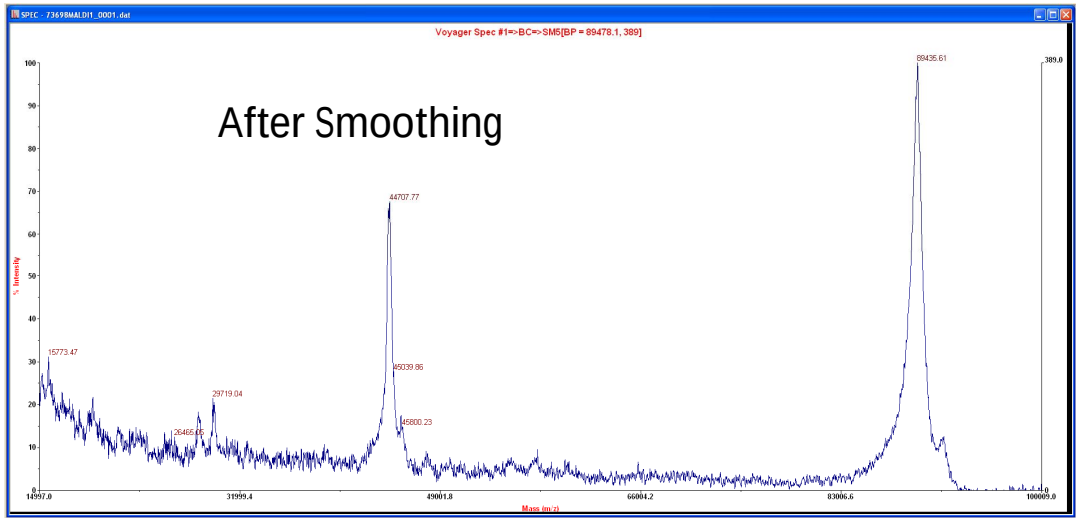
1) Open your data file in Data Explorer.
2) Select Baseline Correction from Process pulldown menu.
3) Baseline corrected spectrum will appear.

2



Curve Smoothing





1) Select Noise Filter/Smooth… from Process dropdown menu.
2) Select Gausian Smooth from dropdrop down menu and Filter Width 5 points.
3) Click OK.