

Spex Fluorolog 1680 Spectrofluorimeter

Updated November 14, 2017

Instrument instructions can be found at:

<http://academic.bowdoin.edu/chemistry/resources/instructions.shtml>

- ii. Right click on printer you just added.
- iii. In the menu, select “Set as Default Printer”.
- g. **Enter sample information in Spex log sheet.**
- h. **Open Instrument Control Center** (Start > All Programs > DataMax_32 > Instrument Control Center).
- i. **Click OK when the “Layout Selection” window appears.**
- j. **Set Ex calibration.**
 - i. Look on the Ex monochromator (next to the lamp), and change the value in the Calibration Entry box.
 - ii. Click OK.
- k. **Set Em calibration.**
 - i. Look at the Em monochromator (right of sample compartment), and change the value in the Calibration Entry box.
 - ii. Click OK.
- l. **Bring hardware back to correct settings.**
 - i. Click Yes.
- m. **The “Instrument Control Center – FL2_2T2.Lay” will appear on the screen.**

3. Experiment Parameters

- a. **Go to Applications > Experiment.**
- b. **Go to Collect > Experiment.**
- c. **Hit the “Exp Type...” to select the type of scan you would like to do.**
- d. **Set scan parameters.**
 - i. Start and Stop values for the scan.
 - ii. Increment and Integration Time.
 - iii. Wavelength for excitation or to monitor emission.
 - iv. Enter sample/collection information in the Sample and Real Time Processing Information.
- e. **Click DataFile button to select where the spectrum will be saved.**
- f. **Set signals** (click Signals button).
 - i. S is sample and R is reference.
 - ii. If you use R, you must put a negative sign in front of it to make it positive.
 - iii. Typically you would monitor “S”, “-S/R”, and “-R”. Use these settings if you plan on correcting your spectrum.
- g. **Set the high voltage for PMT tube** (click HV (on) button).
 - i. If you are monitoring both “S” and “R”, make sure each one has a voltage.
 - ii. The typical settings are S = 900 V and R = 400 V.
- h. **Set slits.**
 - i. Manually adjust the four slits on the instrument.

4. Collect Spectrum

- a. **Insert your sample and click the Run button.**
 - i.

