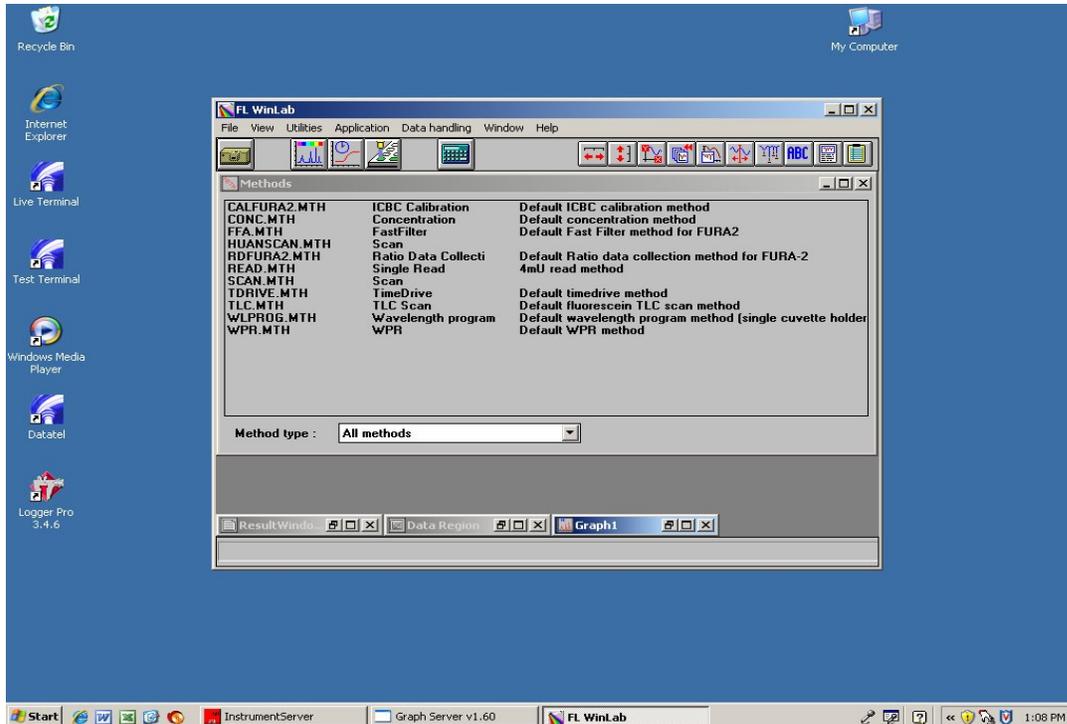


Setting Up The Fluorometer For Quinine Determination (Lab Exercise #5)

1. Warm up the fluorometer for about 5 minutes.
At the computer, click on the “FLWinLab” icon. The main menu will be displayed as shown below.



2. There are quite a few methods shown in the menu. Use the mouse and click twice on the method you want to use. In this case, any “scan” method will be OK, for example HUANSKAN.MTH.

3. A new window will appear, similar to the one shown below. There are two rows of tabs; one is written in black (top), and one is written in color, just below the black one.

At the color row, click on “Emission”. Do not use any other color tabs during the analysis.

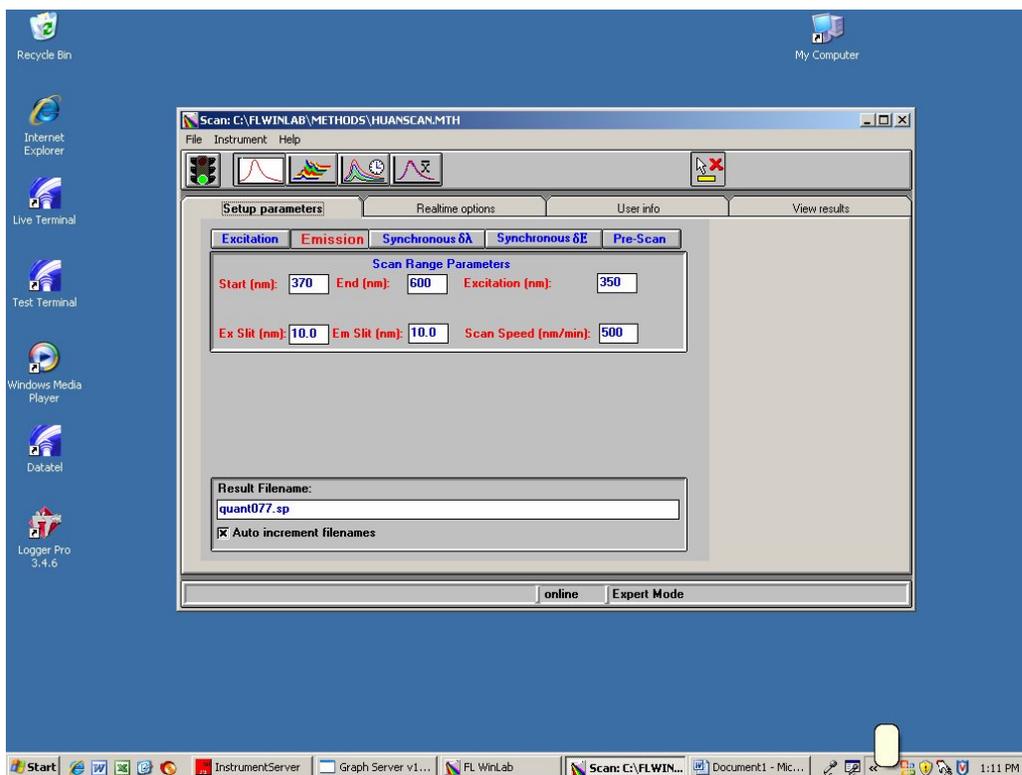
4. You now can enter the “Scan Range Parameters” as follow:

Start (nm): = 370 End (nm): = 600 Excitation (nm): = 350

Ex Slit (nm): = 10 Em Slit (nm): = 10 Scan Speed (nm/min): = 500

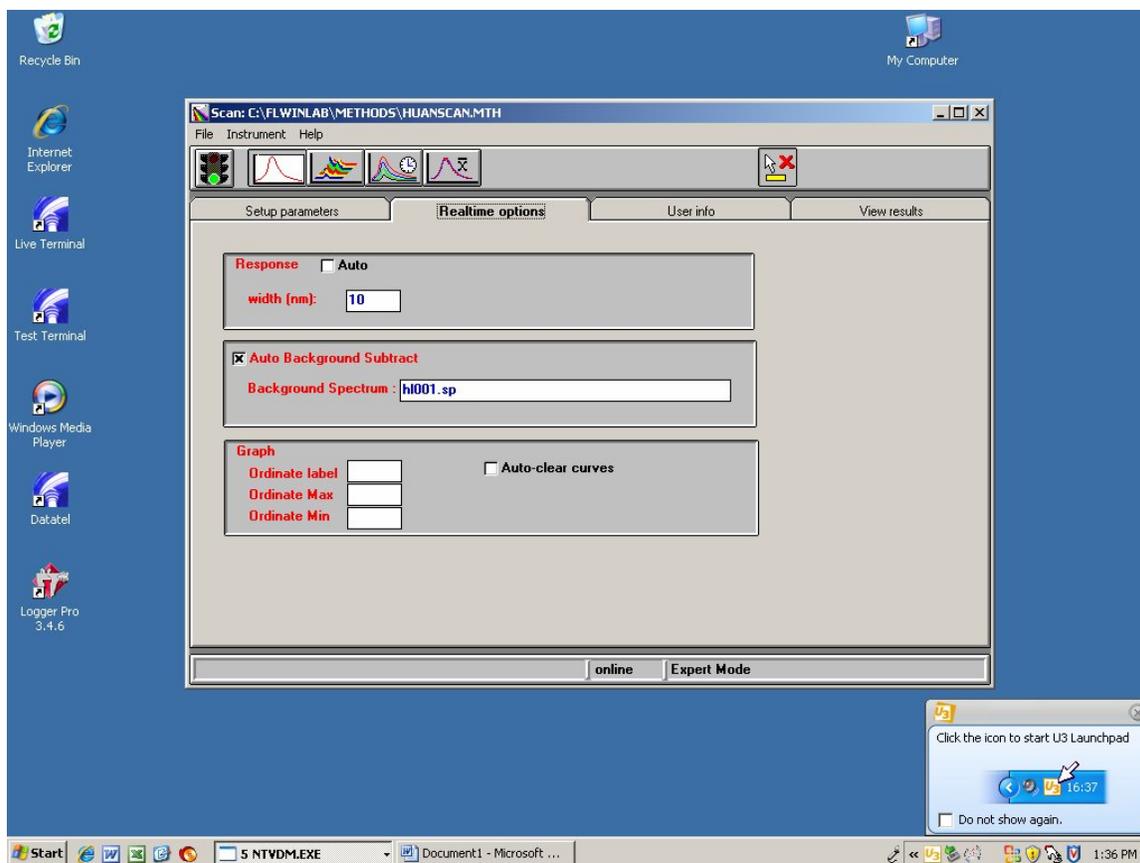
Under “result Filename” at the bottom of the window, change the name to quaXXX00.sp, where the “XXX” stands for your initials (up to 3 initials).

This will allow you to save your data in your own files.

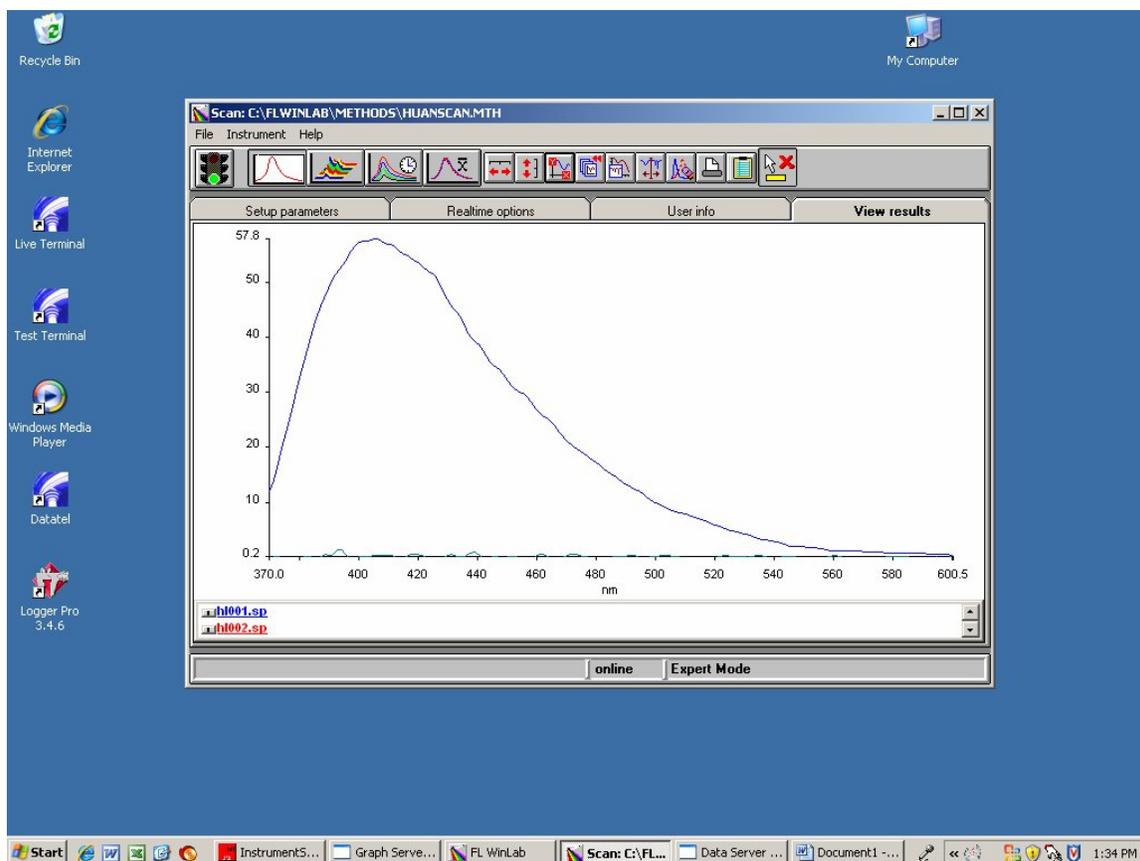


5. Go to the “black ink” row of tabs and click on “Realtime options”. A new window will appear as in the next page:

6. Deselect the “Auto Background Subtract”. This will remove the old blank file, and allow you to scan in your own blank file.
7. Fill a cuvette with your blank (.050M H₂SO₄), to about ¾ or more level, then place it in the cuvette holder of the instrument. Close the lid and click on the “Green “ stop light icon. The instrument will start to scan your blank sample.



8. You can see a new window and the graph as the scan goes on (as shown on the next page).
9. On the bottom of the window is a file name, which will be your blank file. Write down the name so you can use it later. Basically it is quaXXX01.sp, the 1st quant file with your initials on it. For example, if your initials are HVL, then the file is quaHVL01.sp. Each time you scan in another sample, the number will go up. For example, the next sample will be file quaHVL02.sp.



10. Now that you have your blank file, go to the “black ink” row of tabs and click on “Realtime options”. Now select the “Auto Background Subtract”, then put in the name of your blank file, include the extension “sp”.
11. You are now ready to scan any sample. Just fill your cuvette and put it into the holder, then press the “Green” stop light icon. The result will be added to your graph. When the stop light icon goes back to “Green”, you are ready for another sample. Just do #11 with a new sample. Each new scan curve will have its own name. Record the name for each curve, because the print out will not be in color.
12. When you have finished all the samples, close all the windows and log off.