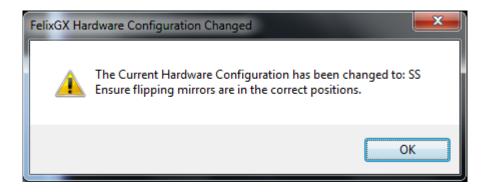
Fluorometer instructions for FelixGX (steady state emission scan)

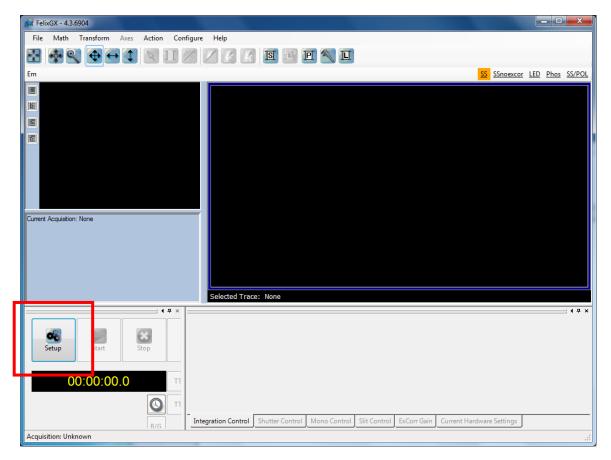
- 1. Turn on arc lamp
- 2. Turn on three control boxes stacked on right (ASOC-10, MOTOR DRIVER-4, and MOTOR DRIVER)
- 3. Wait 10 min for system to power up. You will hear a lot of high pitched pulsing noises
- 4. Open FelixGX and click "SS" for steady state emission scan in the upper right corner of the window

😥 FelixGX - 4.3.6904		
File Math Transform Axes Action Cont	igure Help	
	7 🛛 🖓 🖪 🗉 🖻 🌂 🗉	
Em		SS Stoexcor LED Phos SS/POL
		QuantaMaster (Steady State)
Current Acquisition: None		
	Selected Trace: None	
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Setup Start Stop		
Star Star		
00:00:00.0		
П		
B/G	Integration Control Shutter Control Mono Control Slit Control ExCorr Gain Current F	lardware Settings
Hardware Initialized!		.:

- 5. Wait 5 min while it loads the steady state hardware configuration settings. You will hear more beeps, pulses, and clicks.
- 6. A warning window will pop up reminding you to adjust the "flipper mirrors" (should point at steady state detector and at arc lamp)



7. Click on the "Setup" icon at the bottom left of the window to access the acquisition parameters.



Choose "Emission Scan"

Acquisition Setup	
Acquisition	
Acquisition Type	
Acquisition Type Hardware Configuration: QuantaMaster (Steady State) (SS)	
Image: Argent of the second	
A:B	
Excitation Scan Excitation Ratio Sync Scan select and initialize a new acquisition	
Can	cel Accept

cquisition								
cquisition Type Acquisition Settings	Real-time Corrections	Backgrounds	Traces	Axes	Preferences	Comments	Summary	
Excitation Excitation: 490 n Excitation Slit Widths Excitation Slit Widths	Length: Emission 1 Slit	1		E C	er Performance Detail Settin Step Size: Integration: Use Maximu Sampling Ra	1 1 	nm sec	
					Use MD500 Scripting	0		

In the "Acquisition Settings" tab, input the desired scan range, slits widths, and integration time.

In the "Real-time Corrections" tab, click both the "enable" boxes. For the Excitation, choose "excorr". For the Emission, choose "emcorr_500_blaze".

😥 Setup: Acquisiti	on 1 (EmissionSca	in)	_						x
Acquisition									
	Acquisition Settings	Real-time Corrections	Backgrounds 1	Fraces Axes	Preferences	Comments	Summary		
- Excitation Co	prection								
Emissions Co	prrection	Set Ga Set Ga -6.5		ignal(V): 0.08 iain: 1.04 /olts Go to	Open (Shutter			
							Cancel	Accep	t
Open Ex Co Names: emcorrXe excorr	orr Lookup Tab	le	×	Open E Names: emcorri emcorr_75 emcorr_75)0_blaze	okup Tab	le		

Cancel

OK

Cancel

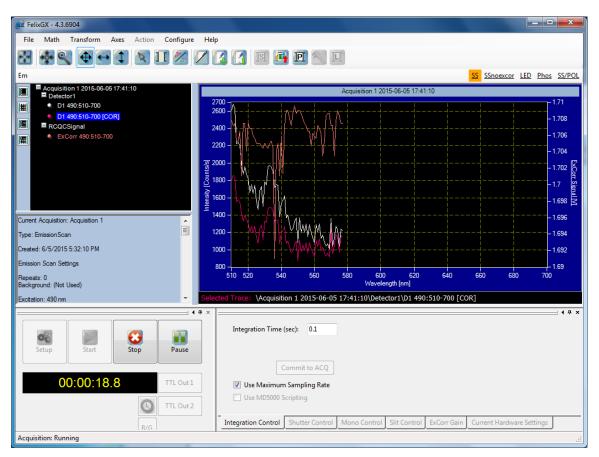
OK

For the excitation correction, type in 470 for the wavelength, press "go to" and then press "open shutter." Then adjust the gain slider so that gain=1.

Setup: Acquisition 1 (EmissionScan)	
Acquisition Type Acquisition Settings Real-time Corrections Backgrounds Traces Axes Preferences Comments Summary Excitation Correction Excitation Correction<	
Image: Set Gain Lookup Table: excor Set Gain Signal(V): 3.21 Image: Gain: I.04 -6.5 6.8 Volts 470 Go to	
Emissions Correction Em 1 I Enabled Lookup Table: emcor_500_blaze Choose Configure	
Cancel	Accept

There is no need to change the settings in any remaining tabs. Press "accept" to load these settings.

If you changed the slits from the 5 nm default, you should click "accept" to load the new settings in order to sync the hardware/software before adjusting the gain. In the Felix32 software, you pressed Acquire and then Abort. In Felix GX, you press Start and then as soon as you hear the monochromator start clicking, press Stop. This is important to do quickly to avoid saturation of the detector! Then go back to Setup and click the Real-time Correction tab to adjust the gain. Press "Start" to begin your scan. You will see the three plots (raw, correction function, and corrected) on the screen and see them listed in the column on the side (similar to Felix32)



To save, right click on "Detector1" and choose "export group". You can export as a .txt file.

To shut down, close the program and turn off control boxes in reverse order.