Scan Sheet

Line	Wavelength Range	PMT	Lockin Sens	Scan Rate
Zero Sodium	-0.5 to 0.5nm	0.200kV	500nA	1nm/min
Sodium-both	587-591nm	0300kV	1.00μA	1nm/min
Zero Hydrogen	-0.5 to 0.5nm	0.400kV	200nA	1nm/min
Hydrogen~434	433-435nm	1.000kV	1.000μA	1nm/min
Hydrogen~486	484-490nm	0.700kV	500nA	2nm/min
Hydrogen~656	654-658nm	0.700kV	500nA	2nm/min

Other settings to note.
Lens=25cm fl.
Monochromator is at distance 50cm from lens, light source is at 50 cm from lens.
Chopper frequency 270 to 280 Hz
Monochromator slits 50 μm –entry and exit

Lockin Amplifier
I x 10^6 ---front panel setting
DC, Float, High Res, Both filters in, "Display", Sin, Phase.
With signal (set monochrmator positions to -0.100nm)—you must push "auto phase" button

Room lights---low light livel.

The settings in the table for PMT, Lockin Sensitivity scale, and scan rate are things you may adjust. If you observe a "flat top peak" you should lower the PMT voltage. If you observe pixilation (digital bit level) on data acquisition throughout the entire scan—you should zoom in to a lower sensitivity scale on the lockin. The values in the table are empirical and worked—however, any motion of light source, lens, monochromator (I mean by small amounts) can change those settings. It is OK to correct settings and scan again.