

There are two CSV (Comma Separated Values) files—these can be opened by text editors, excel, or imported into origin—or opened directly if you tell it “open type csv”.

The files contain I vs λ data for the scanning monochromator setup used for both Rydberg constant and sodium lines. The data is taken for sodium.

- 1) Data file contains a scan from -0.500nm to +0.500nm, scanning through the zero order light passing through the monochromator. Plot and use to determine the offset wavelength of the instrument. I get somewhere between -0.15 and -0.05nm.
 - a. Also determine the FWHM (full width half maximum) of the
 - b. Hand in your plot with both values (peak wavelength and fwhm).
- 2) The second data file contains a scan through the sodium D lines.
 - a. Create plot, and measure the peak wavelengths (report) and peak separation (report)---after accounting for the offset found in part 1. And measure fwhm for each peak
 - b. Hand in plot---with all information clearly labeled and readable.

Note: I have taken these scans with different positioning and settings than you might use in the lab. DO NOT TRY TO PASS THESE OFF AS YOUR DATA---YOU WILL NEED TO TAKE YOUR OWN SCANS.