Spectroscopy
Lab #4

Objectives: To be able to take images of spectra, and to plot a spectrum. To learn what kind of information we can obtain from spectra.

Category: Guided Investigation.

Part 1: Plotting a spectrum

Take pictures of the spectrum of a light bulb, and then load them onto a computer. Try to cover the entire rainbow, and make sure not to saturate any part of the camera. Then, plot your spectrum, i.e. make a Counts vs. Wavelength plot. (Estimate the wavelength). Also, make an Energy vs. Wavelength plot. (Note: $E = hc/\lambda$. You can use $h = 1$ and $c = 1$ for the purpose of this lab.)

Part 2: Stellar spectra

If time permits. To be announced.

Part 3: Conclusions

- Claims/Results: What do you now know after doing this lab, for which you or other students obtained evidence during the lab?
- Evidence: What evidence do you have for your claims/results? That is, why are you making those claims?
- What skills and/or knowledge did you gain or use for the first time in this lab?
- Optional: You are welcome to add comments concerning the lab. What did you find illuminating? What did you find totally confusing? Why? What did you think was fun? What did you think was boring? Why?