

Experiment 3 Worksheet: Atomic Spectra

Purpose: *(A statement should be made here regarding what your experiment is designed to accomplish.)*

Procedure: *(Describe here how you went about completing your experiment. Use enough detail that someone could repeat it, if necessary. Also reference any books or manuals you may have used to assist you.)*

Data:

(Complete the Table using experimental results)

Line Color	Known He Wavelength	Experimental Spectrometer Value
Violet	388.9 nm	
Blue	468.6 nm	
Green	501.6 nm	
Yellow	587.6 nm	
Orange	667.8 nm	
Red	706.5 nm	

Create a calibration graph using the experimental data collected above. Graph paper is located at the back of this manual.

Complete the table below:

<u>Unknown</u>	<u>Line Color Observed</u>	<u>Spectrometer Reading</u>	<u>Corrected Wavelength</u>

Conclusions: *(Summarize your results here, report the identification of all of the unknowns and discuss possible errors that may have occurred during the testing.)*
