

Name: _____

Lab: Atomic Structure and Atomic Spectra

Grader: _____

Grading Rubric	Subscore	Maximum	Score	Total
Title Page				7
Names / Title		2		
Abstract		5		
Introduction				15
Background information		5		
Important equations		5		
Lab objectives		5		
Method				10
Drawing of setup		5		
Description of procedure		5		
Results				55
Helium Spectrum Plot (w/ Resolution Calculations)		5		
Hydrogen Spectrum Plot (w/ Balmer Series Labels)		5		
Balmer Series Lines		5		
Rydberg Constant		5		
Rydberg Comparison		5		
Ionization Potential		5		
Ionization Comparison		5		
Atomic Plots (Na, K, Cs, Rb)		10		
Spin-Orbit Splitting		5		
Magnetic Field Size		5		
Discussion				35
Pixel Size Discussion		5		
Magnetic Field Comparison		5		
Increasing Principal Quantum Number Explanation		5		
Graph of Spin Orbit Splitting (Z^4)		5		
Spectroscopic Notation		5		
Verification of Selection Rules		5		
Predicted Transitions		5		
Significant Figures				3
Units (-1 every occurrence)				
Measurements w/o uncertainty (-1/2 every occurrence)				
Total				125