Spectroscopy

Turn in one copy of this answer packet with each group member's printed name and signature. By signing, you certify that you have actively participated in the exercise and have put forth effort in equal share to your fellow group members.

Printed Name	**Signature**
_____	_____
_____	_____
_____	_____
_____	_____

Part 1: Lab Spectra

Wavelength: Read the wavelength in nanometers from your spectroscope

Table 1: Hydrogen Calibration

Hydrogen, Observed	
Hydrogen, Calibration	

Table 2: Hydrogen Wavelengths & Frequencies

Color	Wavelength	Frequency

(Note: There are four lines, but one is really faint. If you can't see it, that's ok!)

Table 3: Observed Spectra

Blackbody	
Fluorescent	

Table 4: Emission Line Spectra

	
	
Mystery Gas	

Be sure to write in the name of the gas you're observing!

1. How many colors are actually in a blackbody spectrum?

2. Do you think any of the gases you observed are in the fluorescent light? If so, which one(s)?

3. What is the mystery gas?

Part 2: Stellar Spectra

Table 4

Star	λ_{max} (nm)	Color	$T_{surface}$ (K)	Spectral Class
The Sun			5,800 K	
Vega			11,000 K	