

What You Should Know from “Black Body Radiation”!

- 1.) What produces black body radiation? (I know, everything produces black body radiation--what is it about “everything” that generates that kind of radiation?)
- 2.) What does the intensity of black body radiation do as the temperature increases?
- 3.) What does the wavelength of black body radiation do as the temperature increases?
- 4.) Photons produced at the hot central section of a star proceed outward. What happens to those whose energies if they:
 - a.) match up with energy jumps of the atoms active in the star?
 - b.) do not match up with energy jumps of the atoms active in the star?
 - c.) which of the two situations outlined above correspond to an apparent dip in light intensity when you look at the absorption spectra of the star?
- 5.) When talking about the absorption spectrum of a star, the low intensity radiation that corresponds to “missing” frequencies comes from where in the star?

6.) When talking about the absorption spectrum of a star, the high intensity radiation that corresponds to non-missing frequencies comes from where in the star?

7.) Stars with a cool surface temperature (3000 degrees Kelvin) are not able to tear apart molecular compounds. Their lines are typically produced by what kind of molecules?

8.) Stars in the 6000 degrees Kelvin range have no molecular lines but do have lines from what atom?

9.) Stars in the 8000 to 10,000 degrees Kelvin range are famous for producing spectral lines from what?

10.) O type stars at 30,000 degrees Kelvin produce spectral lines from what?