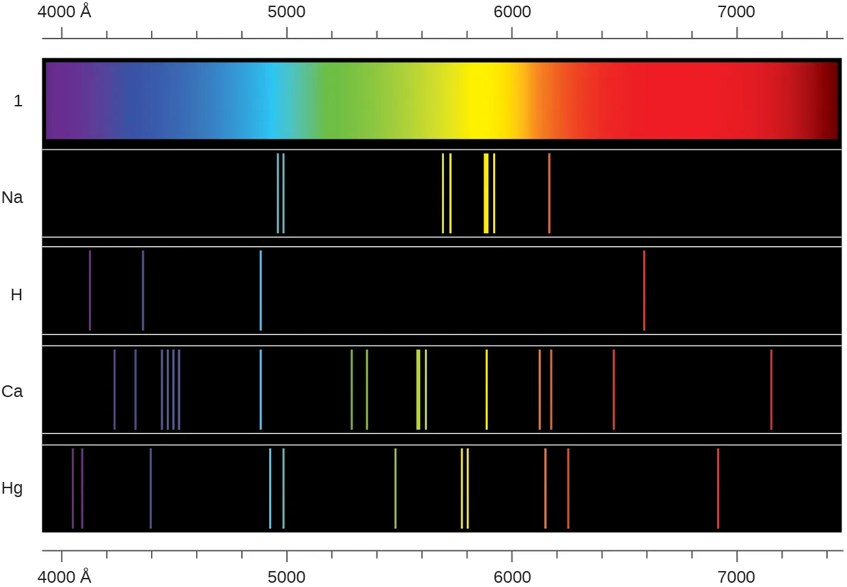
# Open Chemistry Online – Post Quiz #11 (OpenStax Ch: 6.1 - 6.2)

1. Text

   Description automatically generatedCalculate the energy associated with a single photon of the violet wavelength in the hydrogen emission spectrum ().

Figure 1: Wavelengths of visible light emitted from Hydrogen atoms

1. Calculate the energy associated with a single photon of the red wavelength in the hydrogen emission spectrum ()
2. Based on your answers to a and b, which of these represents a larger transition for an electron within the hydrogen atom. Explain why – including what the energy for each emission represents – in at least 1-2 sentences for full credit.
3. The violet band in the Hydrogen emission series represents a transition from n=6 to n=2. How would the energy compare for a photon that is emitted when an electron falls from n=6 to n=1? Estimate the color/type of electromagnetic radiation associated with the photon emitted when an electron goes from n=6 to n=1.