1. Suppose you have sample of gaseous H atoms that has been heated so that each of the first three energy levels (n =1, 2, 3) is populated. What lines in the emission spectrum (in mm) can be observed from this sample? Also convert each of these wavelengths into frequencies (s-1).
2. The work function $ϕ$ for gallium is 4.32 eV. If you shine blue light on sodium metal, will electrons by ejected? [ 1 eV = (1.602 X 10-19 C) (1 V = 1.602 X 10-19J]