

Chem 155 Homework #7 Due at the start of class on Mon. Feb 22

Reading: Finish Chapter 15

Chapter 13 Problems:

13.35

Chapter 15 Problems:

15.13

15.15

15.27

15.30

15.32

15.35

15.83

15.94 (hint 1: the first ionization energy of K is 419 kJ/mol) (hint 2: if the photons arrive at exactly the same time so you don't have to worry about any intermediate states)

15.95

15.100

Additional Problems:

1) In class we discussed that the Planck distribution for blackbody radiation went to zero in the limit that λ went to zero. Use L'Hopital's rule to show that the Planck distribution formula also goes to zero energy density as λ goes to infinity (which is required so that the integrated energy density is finite).

2) (not to turn in) Practice the previous midterms