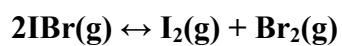


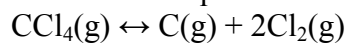
4. For the equilibrium process:



$$K_p = 8.5 \times 10^{-3} \text{ at } 150^\circ\text{C}$$

If 0.025 atm of IBr is placed in a 2.0L container, what is the partial pressure of this substance (IBr) after equilibrium is reached?

5. At 700K the equilibrium constant for the reaction:



is $K_p = 0.76$. A flask is charged with 2.00 atm of CCl_4 which then reaches equilibrium at 700K.

(a) What percent of the original CCl_4 is reacted when the system reaches equilibrium?

(b) What are the partial pressures of CCl_4 and Cl_2 at equilibrium?

6. Silver chloride, $\text{AgCl}(s)$ is an insoluble strong electrolyte (doesn't dissolve in water, and a strong electrolyte is something that completely breaks apart forming its two ions)
- (a) Write the equation for the dissolution of solid silver chloride in liquid water.
 - (b) Write the expression for K_c for the reaction in part (a).
 - (c) Explain how an **insoluble** solid (ionic) in water could be considered an equilibrium process