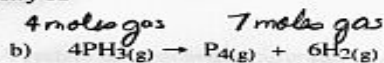
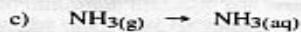


[KEY]



The products have greater entropy.



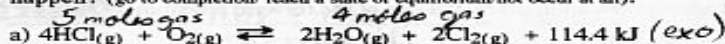
The reactants have greater entropy. (gas has more disorder than (aq))

18. When the two tendencies oppose each other (one favours reactants, the other favours products), the reaction will reach a state of equilibrium

Processes in which both the tendency toward minimum enthalpy and toward maximum entropy favour the products, will go to completion

Processes in which both the tendency toward minimum enthalpy and toward maximum entropy favour the reactants, will not occur at all

19. For each of the following reactions decide which has minimum enthalpy (reactants or products) which has maximum entropy (reactants or products), and if the reactants are mixed, what will happen? (go to completion/ reach a state of equilibrium/not occur at all).

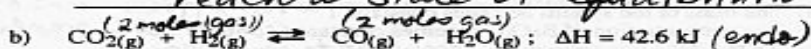


The products have minimum enthalpy.

The reactants have maximum entropy.

If  $\text{HCl} + \text{O}_2$  are put together, what should happen? (go to completion/ reach a state of equilibrium/not occur at all)

reach a state of equilibrium



The reactants have minimum enthalpy.

How does the entropy of the reactants and products compare? the same (no change)

If  $\text{CO}_2(\text{g}) + \text{H}_2(\text{g})$  were put in a flask, what should happen? (go to completion/ reach a state of equilibrium/not occur at all)

probably not occur at all or very little