

Name : _____ Date : _____

Le Chatelier's Principle

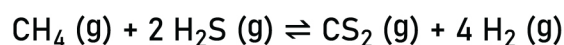
1. State Le Chatelier's Principle.

2. What is the effect on the total pressure inside a closed vessel if :

(a) More gas is added ?

(b) The container's volume is increased ?

3. For the reaction below, which change would cause this endothermic reaction in equilibrium to shift right?



(a) Decrease the concentration of dihydrogen monosulfide

(b) Increase the pressure on the system

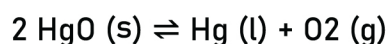
(c) Increase the temperature of the system

(d) Increase the concentration of carbon disulfide

(e) Decrease the concentration of methane

Ans: _____

4. What would happen to the position of the equilibrium when the following changes are made to the reaction below?



(a) HgO is added to the system.

(b) HgO is added to the system.

Le Chatelier's Principle

1. State Le Chatelier's Principle.

When stress is imposed on a system at equilibrium, the system will shift to oppose the stress and reestablish equilibrium.

2. What is the effect on the total pressure inside a closed vessel if :

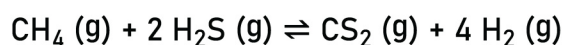
(a) More gas is added ?

The number of moles of the gas increases, and the total pressure of the gas inside the vessel will increase.

(b) The container's volume is increased ?

The total pressure of the gas inside the vessel decreases because the pressure is inversely proportional to the volume.

3. For the reaction below, which change would cause this endothermic reaction in equilibrium to shift right?



(a) Decrease the concentration of dihydrogen monosulfide

(b) Increase the pressure on the system

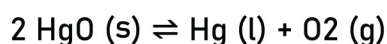
(c) Increase the temperature of the system

(d) Increase the concentration of carbon disulfide

(e) Decrease the concentration of methane

Ans: C

4. What would happen to the position of the equilibrium when the following changes are made to the reaction below?



(a) HgO is added to the system.

There is no shift because pure liquids and solids do not affect the equilibrium position.

(b) HgO is added to the system.

Shifts left to decrease the number of moles of gas.