

Le Chatelier's Principle.

“When a system at equilibrium is disturbed, the system adjusts in a way to reduce the change.”



reactants

products

Concentration Effect:

If you add more reactant to a system in chemical equilibrium, the forward reaction is increasing and the equilibrium is said to shift right.

If you add more product to a system in chemical equilibrium, the reverse reaction is increasing.

Temperature Effect:

For all exothermic forward reactions ($\Delta H < 0$), increasing the temperature of an equilibrium mixture, usually lead to a shift in favor of the reactants.

For all endothermic forward reactions ($\Delta H > 0$), increasing the temperature of an equilibrium mixture, usually lead to a shift in favor of the products.

Pressure Effect:

In an equilibrium, a pressure increase favors the reaction that produces fewer gas molecules.