CSD=5 Equilibrium Constant in term of concentration and pressure

$n_1A \rightleftharpoons n_2B$

$K_c = \frac{[B]^{n_2}}{[A]^{n_1}}$, $K_p = \frac{(P_B)^{n_2}}{(P_A)^{n_1}}$

↓ Eq. Const in term of molar Con. ↓ Eq. Const in term of partial pressure of A & B

Note → Con. or pressure of solid substance not consider in Equilbm. Equation.

$CaCO_3(s) \rightleftharpoons CaO(s) + CO_2(g) \rightarrow$

$K_p = P_{CO_2}$

$K_c = [CO_2]$

Relation b/w K_p & K_c → $K_p = K_c(RT)^{\Delta ng}$

Where, Δng = total gaseous mole of pod - total gaseous mole of Reactant

$K_p = K_c(RT)^{\Delta ng}$ → value of $RT > 1$

- $\Delta ng = 0$ → $K_p = K_c$
- $\Delta ng > 0$ → $K_p > K_c$
- $\Delta ng < 0$ → $K_p < K_c$