

Bu eşitlikler, 2. Sınavda verilecektir:

$$R=8,314 \text{ J K}^{-1} \text{ mol}^{-1} = 0,08314 \text{ L bar K}^{-1} \text{ mol}^{-1} = 0,0821 \text{ L atm K}^{-1} \text{ mol}^{-1}$$
$$T(\text{K})=T(^{\circ}\text{C})+273,15 \quad 1 \text{ Pa}=10^{-5} \text{ bar}$$

$$\text{Sıcaklık değişimi} \quad \Delta S = C_V \ln \frac{T_2}{T_1} \quad \text{veya} \quad C_p \ln \frac{T_2}{T_1} \quad \left(\frac{\partial S}{\partial T} \right)_p = \frac{C_p}{T} \quad \left(\frac{\partial S}{\partial T} \right)_V = \frac{C_V}{T}$$

$$\text{Tersinir faz değişimi, örneğin,} \quad \Delta S_{buh} = \frac{q_p^{ter}}{T_b} = \frac{\Delta H^{buh}}{T_b}$$

$$\Delta S_{karışım} = -nR \left(X_A \ln X_A + X_B \ln X_B \right)$$

$$H = U + pV \quad A = U - TS \quad G = U + pV - TS$$

$$U(S, V) \Rightarrow dU = TdS - pdV$$

$$H(S, p) \Rightarrow dH = TdS + Vdp$$

$$A(T, V) \Rightarrow dA = -SdT - pdV$$

$$G(T, p) \Rightarrow dG = -SdT + Vdp$$

$$\Delta G_{reak}^0 = -RT \ln K_p \quad \Delta G = \Delta G_{reak}^0 + RT \ln Q$$

$$\ln K_2 = \ln K_1 + \frac{\Delta H_{reak}^0}{R} \left(\frac{1}{T_1} - \frac{1}{T_2} \right)$$

$$\mu_i(g, T, p) = \mu_i^0(g, T) + RT \ln p_i \quad (p, \text{ bar cinsinden})$$

$$S(p, T) = S^0(T) - nR \ln p \quad (p, \text{ bar cinsinden})$$

$$\left(\frac{dp}{dT} \right)_{birarada} = \left(\frac{\Delta \bar{S}}{\Delta \bar{V}} \right)_{\alpha \rightarrow \beta}$$

$$\left(\frac{dp}{dT} \right)_{birarada} = \left(\frac{\Delta \bar{H}}{T \Delta \bar{V}} \right)_{\alpha \rightarrow \beta}$$