$$R = 8.314 JK^{-1}mol^{-1}$$

$$R = 0.08208 L - atmK^{-1}mol^{-1}$$

$$R = 0.08314 L - barK^{-1}mol^{-1}$$

$$\Delta G = \Delta H - T\Delta S$$

$$\ln\left(\frac{P_2}{P_1}\right) = \frac{-\Delta H_{vap}}{R}\left[\frac{1}{T_2} - \frac{1}{T_1}\right]$$

$$\Delta H_{solution} = \Delta H_{lattice} + \Delta H_{solvation}$$

$$\Delta T_b = mK_b \qquad \Delta T_b = imK_b$$

$$\Delta T_f = -mK_f \qquad \Delta T_f = -imK_f$$

$$\Pi = MRT \qquad \Pi = \mathrm{iMRT}$$

$$P_{solution} = X_{solvent}P^*$$

$$P_{gas} = X_{gas}K$$

$$\Delta G_R^o = -RT\ln K$$

$$\ln\left(\frac{K_2}{K_1}\right) = \frac{-\Delta H_R^o}{R}\left[\frac{1}{T_2} - \frac{1}{T_1}\right]$$

$$\boxed{K_P = K_C(RT)^{\Delta n}}$$