

Expression potentiel Chimique

Brenon Audaat p 65

* Gazs

- Gazs parfait, melange ideal :

$$\mu = \mu^{\circ} + RT \ln (P^i / P^{\circ})$$

- Gaz reel melang reel :

$$\mu = \mu^{\circ} + RT \ln (P^i / P^{\circ}) + RT \ln (\phi_i)$$

* Constituant condense en melange

- melange ideal :

$$\mu = \mu^{\circ} + V_m (P - P^{\circ}) + RT \ln (x_i)$$

- melange non ideal :

$$\mu = \mu^{\circ} + \int_{P^{\circ}}^P V_m dp + RT \ln (x_i) + RT \ln (\gamma)$$

* Solute en solution

$$\mu = \mu^{\circ} + \int_{P^{\circ}}^P V_m dp + RT \ln (C_i / C^{\circ}) + RT \ln (\gamma)$$

avec γ coeff d'activite lg $\lim_{x \rightarrow 1} \gamma = 1$

$$\hookrightarrow \text{(Debye Huckel: } \log \gamma = \frac{-A z^2 \sqrt{I}}{1 + 0.5 z^2 \sqrt{I}} \approx -0.5 z^2 \sqrt{I} \text{)}$$