freeE6_print.nb

FreeE

$$\sum_{\underline{i-1}}^{\underline{\mathrm{Num}}} \Big\{ \frac{ \underline{\mathrm{Na[i]}} \, \left(\underline{\mathrm{Fs[i]}} + \frac{\underline{\mathrm{T}} \, \mathrm{Log}\left[\frac{\mathrm{Na[i]}}{\mathrm{e} \, \underline{\mathrm{V0}}}\right]}{\mu[\mathrm{i}]} \right) \, \mu[\mathrm{i}]}{\underline{\mathrm{M0}}} \Big\}$$

Chem Diss Equilibrium condition

$$\left(\, \frac{\text{Na}\, [\, 1\,]}{\text{V0}} \, \right)^{\vee \, [\, 1\,]} \, \left(\, \frac{\text{Na}\, [\, 2\,]}{\text{V0}} \, \right)^{\vee \, [\, 2\,]} \, = \, e^{-\frac{\text{Fs}\, [\, 1\,]\, \, \mu \, [\, 1\,]\, \, \nu \, [\, 1\,]\, + \text{Fs}\, [\, 2\,]\, \, \mu \, [\, 2\,]\, \, \nu \, [\, 2\,]}{\text{T}}$$

Chem Diss 2 matter equilibrium condition

$$\left(\, \frac{\text{Na}\, [\, 1\,]}{\text{V0}} \, \right)^{-\mu[\, 2\,]} \, \left(\, \frac{\text{Na}\, [\, 2\,]}{\text{V0}} \, \right)^{\mu[\, 1\,]} \, = \, e^{\frac{(\text{Fs}\, [\, 1\,] - \text{Fs}\, [\, 2\,])\,\, \mu[\, 1\,]\,\, \mu[\, 2\,]}{\text{T}}}$$

Soluiton Chem Diss 2 matter equilibrium condition

$$\left(\frac{\,{\rm Na}\,[\,1\,]\,}{\,{\rm V0}}\,\right)^{-\mu[\,2\,]}\,\left(\frac{\,{\rm N0}\,-\,{\rm Na}\,[\,1\,]\,\,\mu\,[\,1\,]\,}{\,{\rm V0}\,\,\mu\,[\,2\,]\,}\right)^{\mu\,[\,1\,]}\,=\,e^{\frac{\,({\rm Fs}\,[\,1\,]\,-\,{\rm Fs}\,[\,2\,]\,)\,\,\mu\,[\,1\,]\,\,\mu\,[\,2\,]\,}{\,{\rm T}}}$$

Soluiton Chem Diss 2 matter equilibrium condition in X Na[1]* μ [1]=M0*X

$$\text{R0}^{\mu \text{[1]}-\mu \text{[2]}} \, \left(\frac{x}{\mu \text{[1]}}\right)^{-\mu \text{[2]}} \, \left(\frac{1-x}{\mu \text{[2]}}\right)^{\mu \text{[1]}} = e^{\frac{(\text{Fs[1]}-\text{Fs[2]}) \, \mu \text{[1]} \, \mu \text{[2]}}{T}}$$

$$(1-X)^{\mu[1]} \; X^{-\mu[2]} \; = \; e^{\frac{(Fs[1]-Fs[2])\; \mu[1]\; \mu[2]}{T}} \; R0^{-\mu[1]+\mu[2]} \; \mu[1]^{-\mu[2]} \; \mu[2]^{\mu[1]}$$