

Handin 11b: Chemical Potential of Solutions

Fill in the following “beakers” with appropriate mole fractions and partial pressures. In other words, does the chemical potential equation apply to a one phase or two phase system, pure substance, gas mixture, or solution? The first and 4th boxes are done for you as examples.

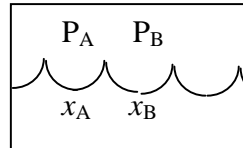
$$\mu(g) = \mu^\circ(g) + RT \ln P/P^\circ$$

Pure gas at P

$$\mu_A(g) = \mu_A^\circ(g) + RT \ln P_A/P^\circ$$

$$\mu_A^*(l) = \mu_A^\circ(g) + RT \ln P_A^*/P^\circ$$

$$\mu_A(x_A) = \mu_A^\circ(g) + RT \ln P_A/P^\circ$$



$$\mu_A(x_A) = \mu_A^*(l) + RT \ln P_A/P_A^*$$

$$\mu_A(x_A) = \mu_A^*(l) + RT \ln x_A$$