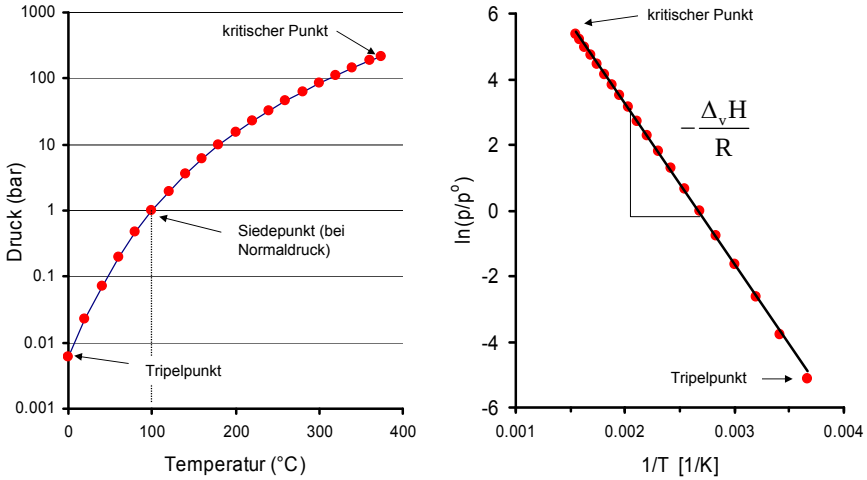
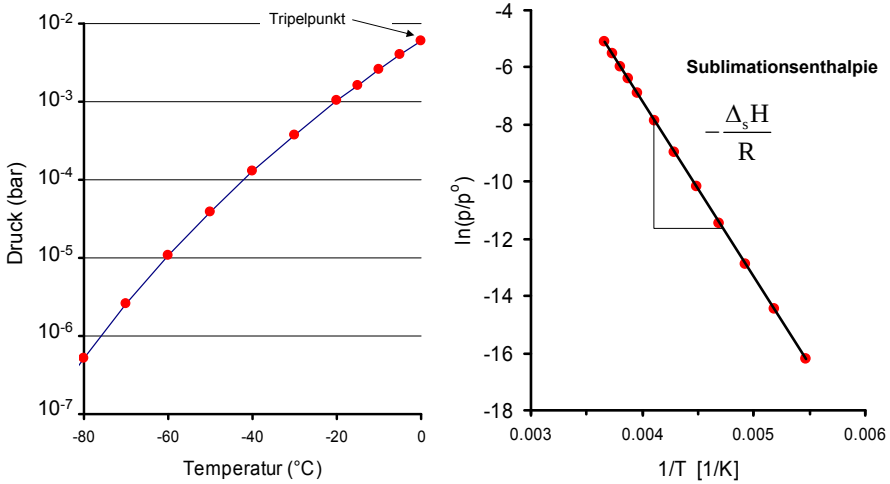
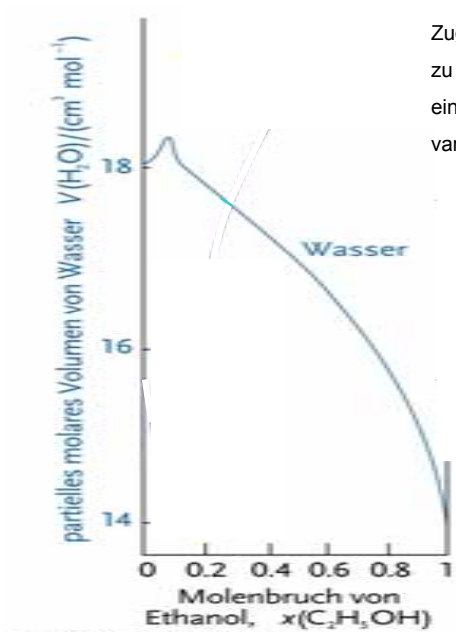
Dampfdruckkurve von Wasser



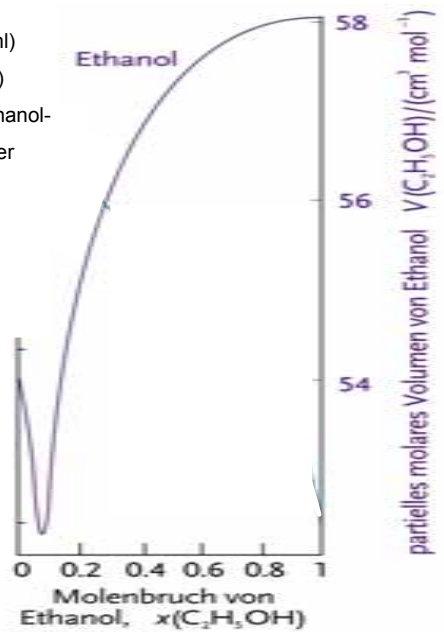
Dampfdruckkurve von Eis

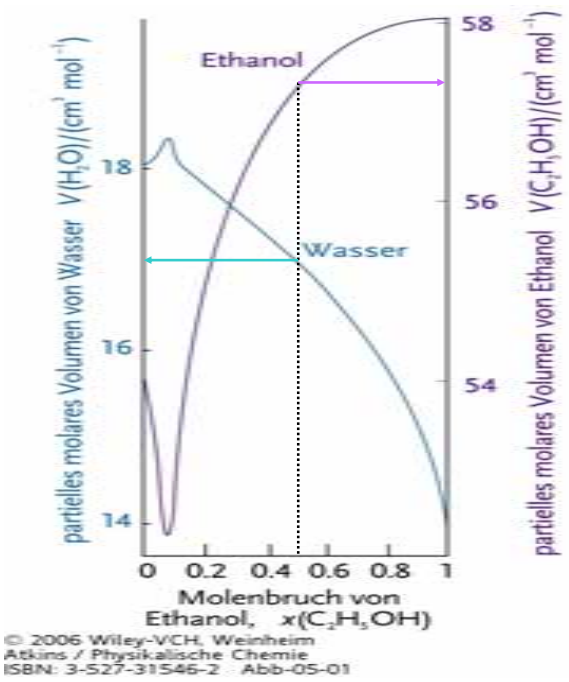




Zugabe von ein Mol (18 ml) Wasser zu einem sehr (∞) großen Volumen einer Ethanol-Wasser-Mischung variabler Zusammensetzung

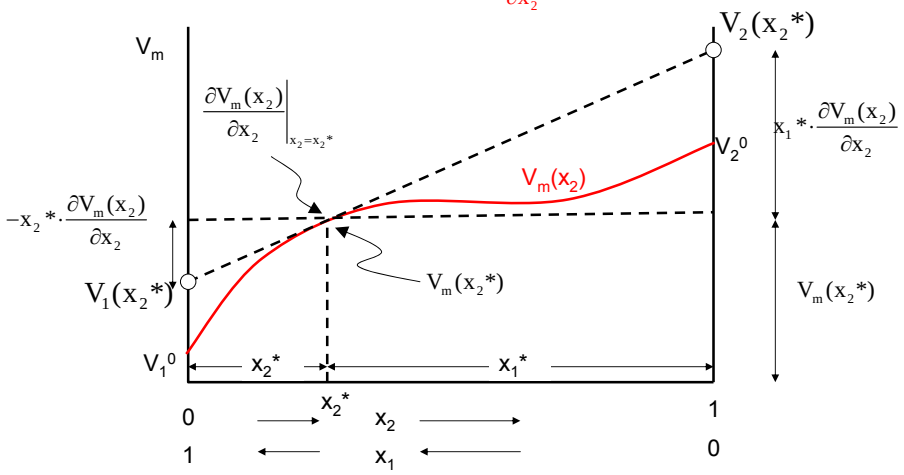
Zugabe von ein Mol (58 ml) Ethanol zu einem sehr (∞) großen Volumen einer Ethanol-Wasser-Mischung variabler Zusammensetzung





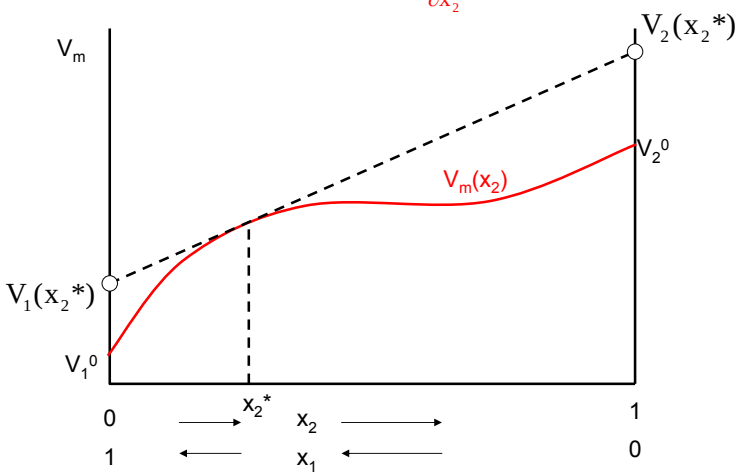
$$V_2(x_2) = V_m(x_2) + x_1 \cdot \frac{\partial V_m(x_2)}{\partial x_2}$$

$$V_1(x_2) = V_m(x_2) - x_2 \cdot \frac{\partial V_m(x_2)}{\partial x_2}$$



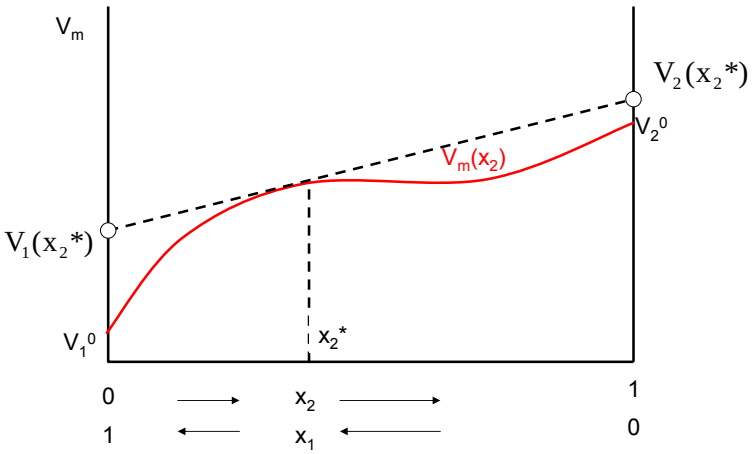
$$V_2(x_2) = V_m(x_2) + x_1 \cdot \frac{\partial V_m(x_2)}{\partial x_2}$$

$$V_1(x_2) = V_m(x_2) - x_2 \cdot \frac{\partial V_m(x_2)}{\partial x_2}$$



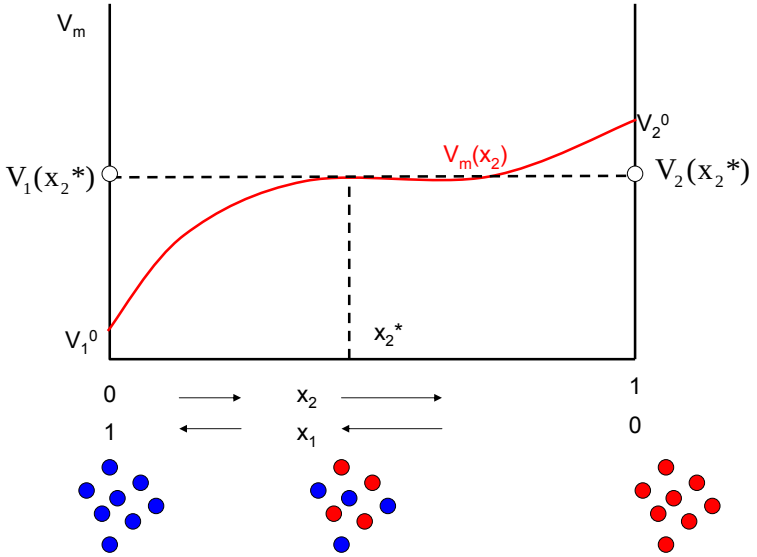
$$V_2(x_2) = V_m(x_2) + x_1 \cdot \frac{\partial V_m(x_2)}{\partial x_2}$$

$$V_1(x_2) = V_m(x_2) - x_2 \cdot \frac{\partial V_m(x_2)}{\partial x_2}$$



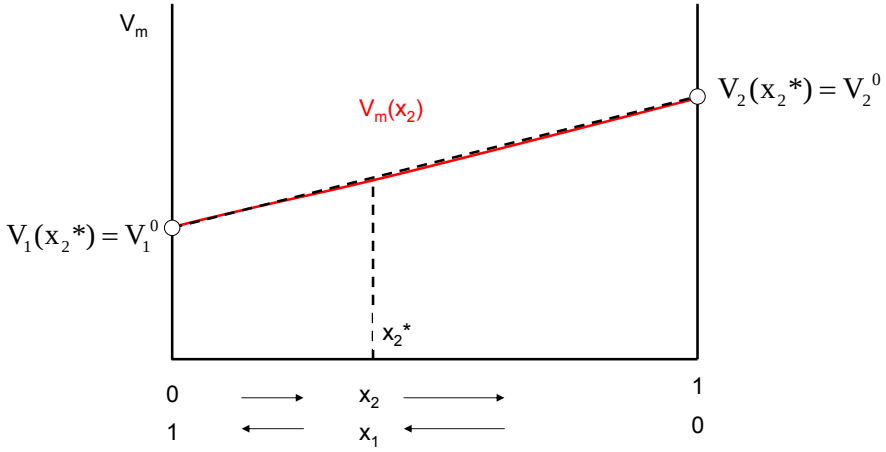
$$V_2(x_2) = V_m(x_2) + x_1 \cdot \frac{\partial V_m(x_2)}{\partial x_2}$$

$$V_1(x_2) = V_m(x_2) - x_2 \cdot \frac{\partial V_m(x_2)}{\partial x_2}$$



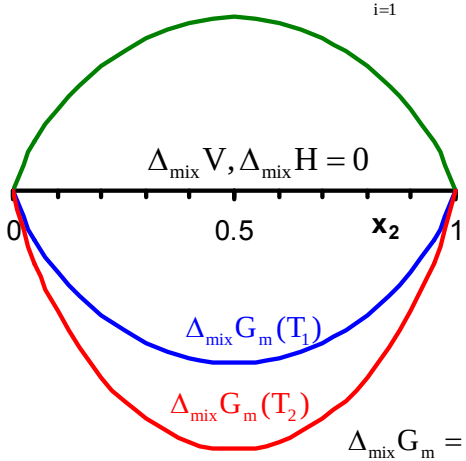
Ideale Mischung:

(Bsp.: Hexan/Heptan, Benzol/Toluol, H_2O/D_2O)



Ideale Mischung

$$\Delta_{mix}S_m = -R \cdot \sum_{i=1}^{k} x_i \cdot \ln x_i$$



$$\Delta_{mix}G_m = R \cdot T \cdot \sum_{i=1}^{k} x_i \cdot \ln x_i$$

$T_1 < T_2$

Reale Mischung: