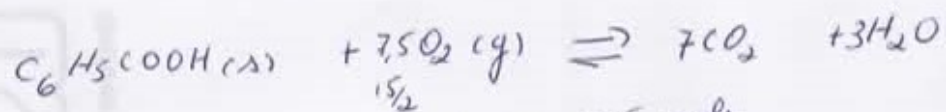
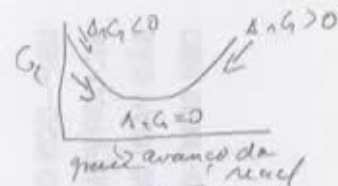


Valor de $\Delta G^\circ - \Delta A^\circ$ $T = 25^\circ\text{C}$

Ex 10 mela



$$\Delta n = -0,5 \text{ mols}$$



$$\left. \begin{aligned} \Delta G &= \Delta H - T\Delta S \\ \Delta A &= \Delta U - T\Delta S \end{aligned} \right\} - \Delta G - \Delta A = \Delta H - \Delta U = \Delta(PV) = \Delta n RT$$
$$\Delta U + \Delta(PV)$$

$$\Delta V_{\text{liq}} \stackrel{\text{mólido}}{=} 0$$

$$\Delta G^\circ - \Delta A^\circ = RT\Delta n(\text{g}) = 8,314 \text{ J mol}^{-1} \text{ K}^{-1} \times 298 \text{ K} \times (-0,5 \text{ mols}) = -1239 \text{ J}$$

Obtenha $\Delta G \rightarrow$ a $T=0$, $T=10$ e $T=-10^\circ\text{C}$

Ex slide Aula

$\Delta G_{T=0, T=10 \text{ e } T=-10^\circ\text{C}}$ fusão do gelo

a) pto normal de fusão do gelo

$$\Delta G = \Delta H - T\Delta S = 6,01 - 273 \text{ K} (22,0 \times 10^{-3}) = 0$$

$\Delta G = 0$ sistema em equilíbrio gelo (s) \rightleftharpoons H₂O(l)

b) a 10°C

$$\Delta G = 6,01 \text{ kJ/mol} - 283 \text{ K} (22,0 \times 10^{-3} \text{ kJ/K mol}) = -0,22 \text{ kJ}$$

$\Delta G < 0$ o gelo derrete espontaneamente

c) a -10°C

$$\Delta G = 6,01 \text{ kJ/mol} - 263 \text{ K} (22,0 \text{ kJ/K mol}) = 0,22 \text{ kJ}$$

$$\Delta G > 0$$

o gelo não derrete espontaneamente a -10°C