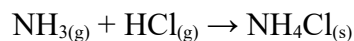
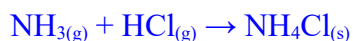


Problema 466: Axusta a reacción seguinte e di se será espontánea, utilizando as ΔG°_f



$$\Delta G^\circ_R = \sum n_p \cdot \Delta G^\circ_{f \text{ prod}} - \sum n_r \cdot \Delta G^\circ_{f \text{ react}}$$

$$\Delta G^\circ_R = 1 \text{ mol} \cdot \Delta G^\circ_f[\text{NH}_4\text{Cl}(\text{s})] - 1 \text{ mol} \cdot \Delta G^\circ_f[\text{NH}_3(\text{g})] - 1 \text{ mol} \cdot \Delta G^\circ_f[\text{HCl}(\text{g})]$$

$$\Delta G^\circ_R = 1 \text{ mol} \cdot \left(-203,8 \frac{\text{kJ}}{\text{mol}}\right) - 1 \text{ mol} \cdot \left(-16,7 \frac{\text{kJ}}{\text{mol}}\right) - 1 \text{ mol} \cdot \left(-95,3 \frac{\text{kJ}}{\text{mol}}\right) = \underline{\underline{-91,8 \text{ kJ}}}$$

Se a variación de enerxía libre é negativa indica que **a reacción é espontánea** a temperatura ambiente