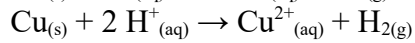
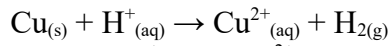
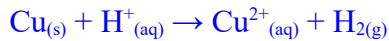


Problema 467: Ajusta a reacción seguinte e di se será espontánea, utilizando as ΔG°_f



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

$$\Delta G^\circ_R = 1 \text{ mol} \cdot \Delta G^\circ_f [\text{Cu}^{2+}_{(aq)}] + 1 \text{ mol} \cdot \Delta G^\circ_f [\text{H}_{2(g)}] - 1 \text{ mol} \cdot \Delta G^\circ_f [\text{Cu}_{(s)}] - 2 \text{ mol} \cdot \Delta G^\circ_f [\text{H}^+_{(aq)}]$$

$$\Delta G^\circ_R = 1 \text{ mol} \cdot \Delta G^\circ_f [\text{Cu}^{2+}_{(aq)}] = 1 \text{ mol} \cdot \left(+65,0 \frac{\text{kJ}}{\text{mol}} \right) = +65,0 \text{ kJ}$$

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