

1 oct 2025 grupo 1203 2026-1

Título de la nota

01/10/2025

proceso adiabático

$$\begin{array}{l} R \\ IR \end{array} \left\{ \begin{array}{l} \Delta U = n \bar{c}_v \Delta T \\ \Delta H = n \bar{c}_p \Delta T \end{array} \right.$$

$$\Delta U = q - w$$

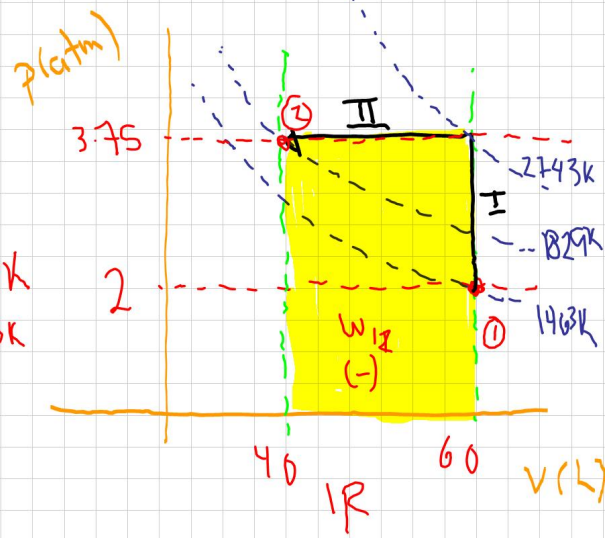
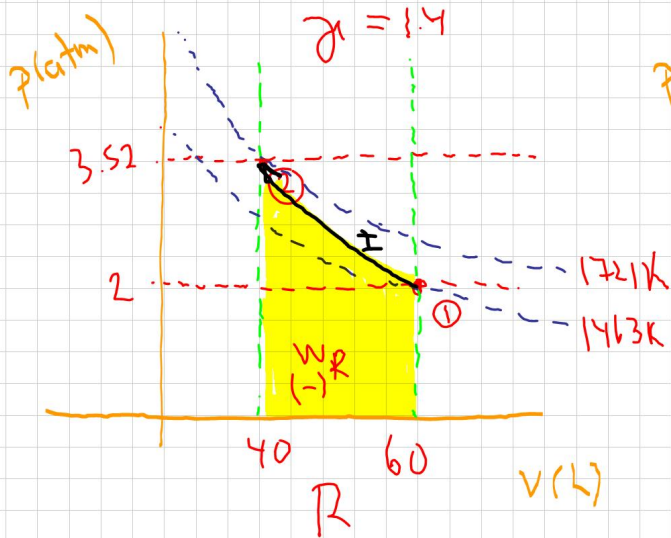
$$q = 0$$

$$\Delta U = -w$$

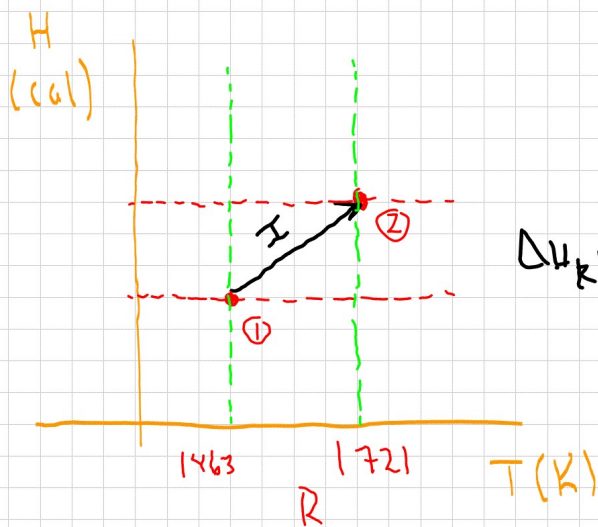
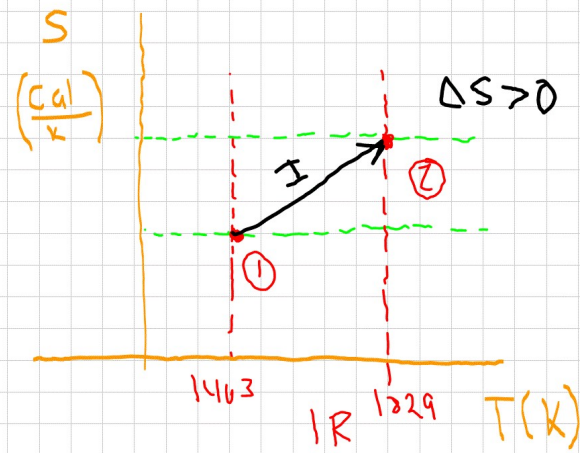
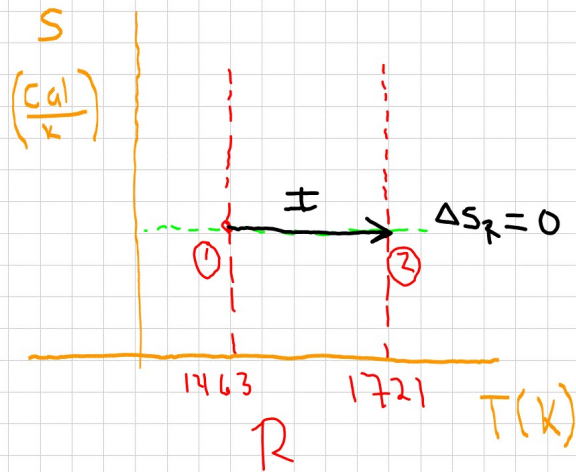
$$\Delta S_R = 0$$

$$\Delta S_{IR} = n \bar{c}_v \ln \frac{T_2}{T_1} + n R \ln \frac{V_2}{V_1}$$

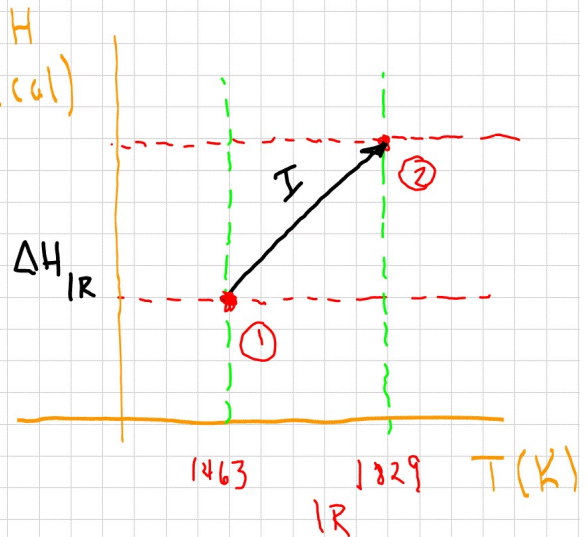
$$\Delta S > 0$$

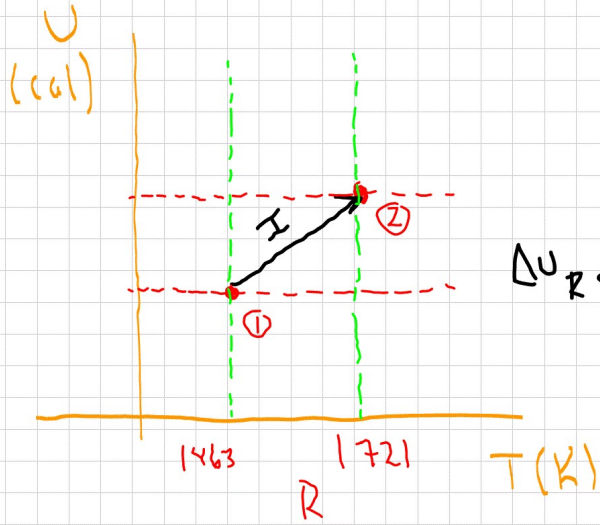


$$\begin{aligned}
 T_3 &= T_1 \left(\frac{P_2}{P_1} \right) \\
 &= 1463 \text{ K} \left(\frac{3.75 \text{ atm}}{2 \text{ atm}} \right) \\
 &= 2743.1 \text{ K}
 \end{aligned}$$

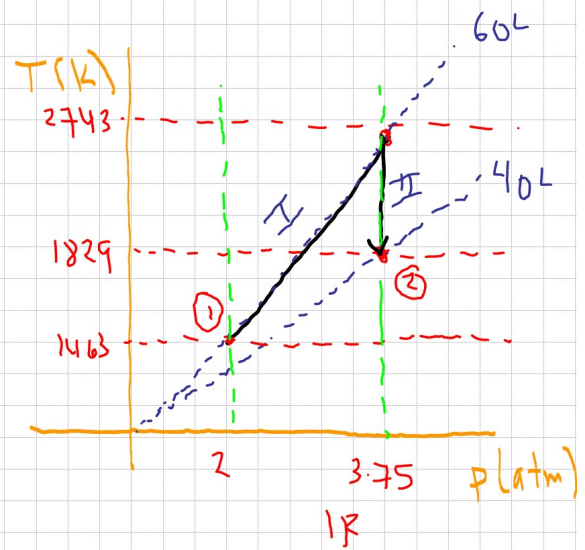
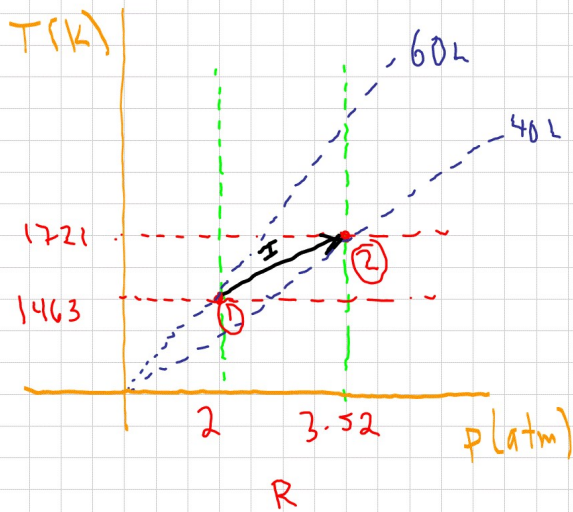
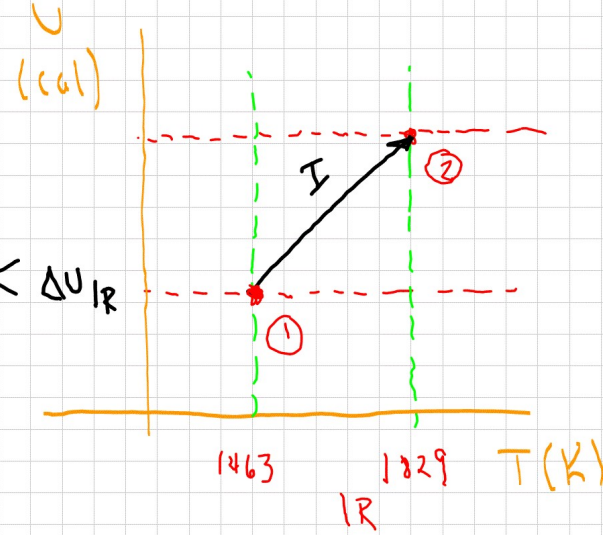


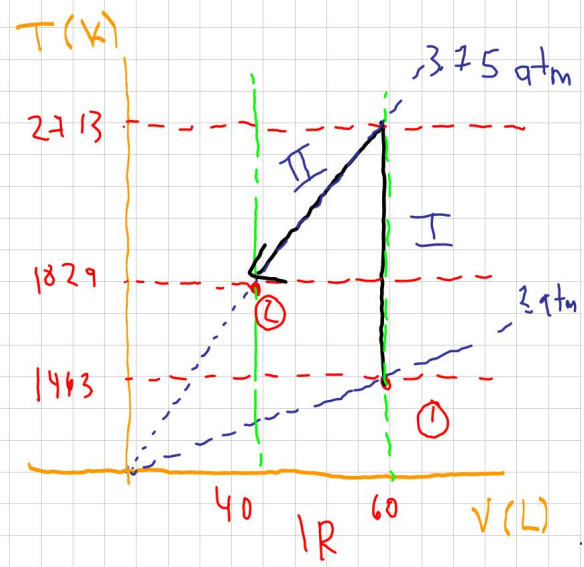
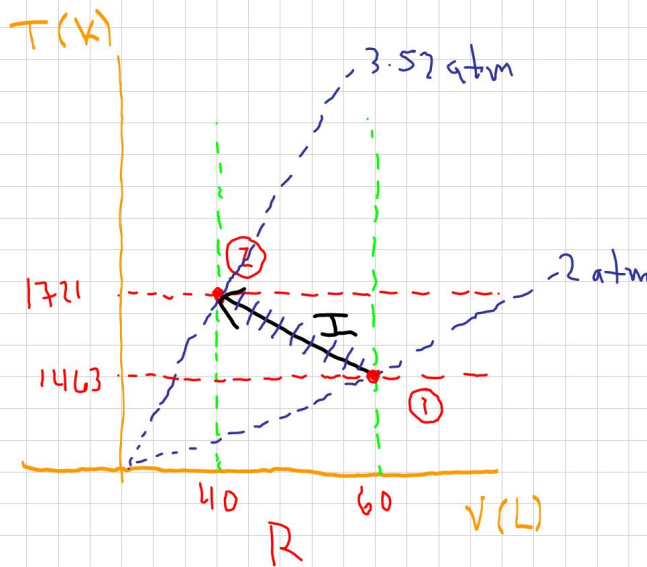
$$\Delta H_R < \Delta H_{IR}$$





$$\Delta U_R < \Delta U_{IR}$$





Ciclos termodinámicos

