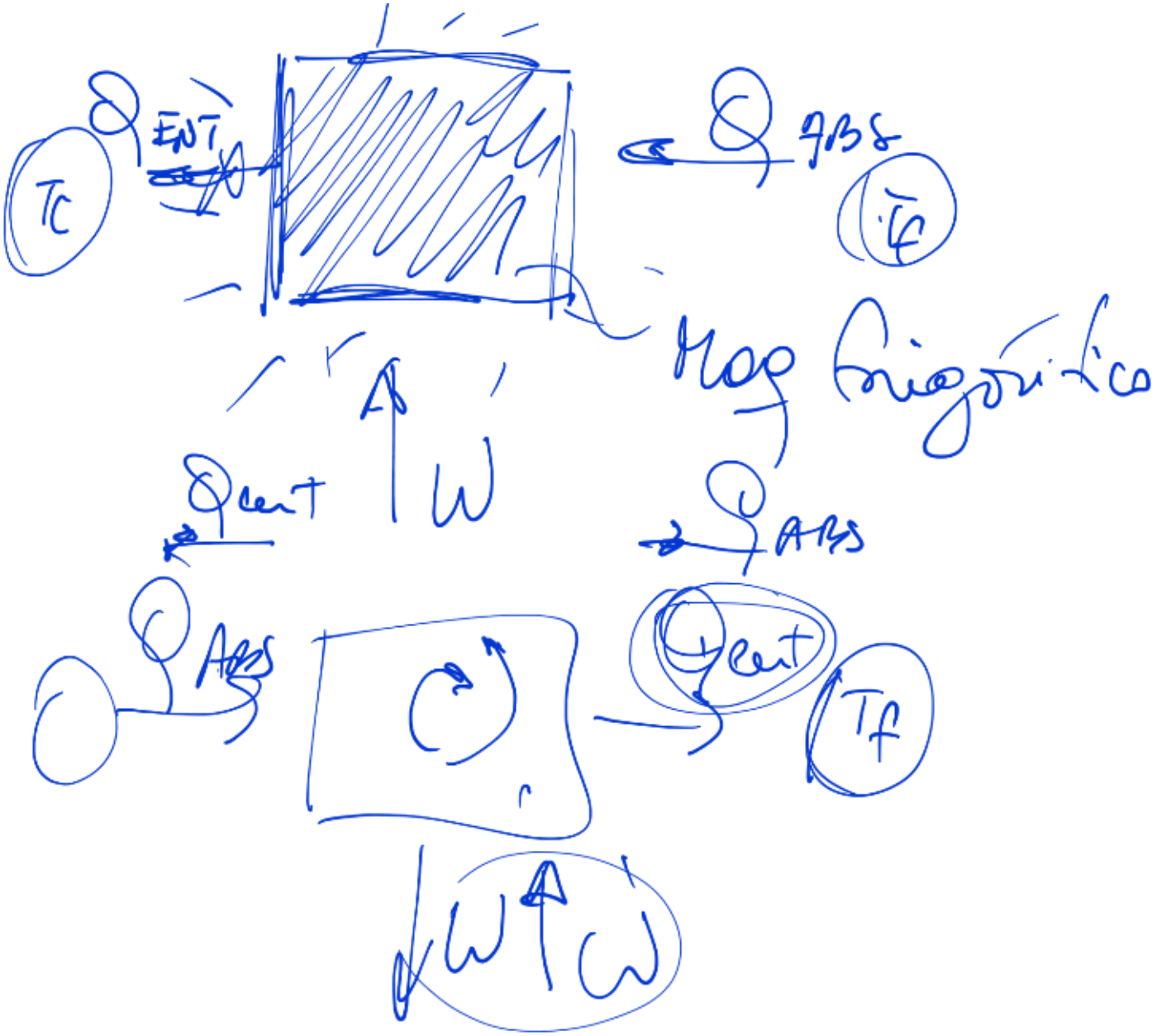
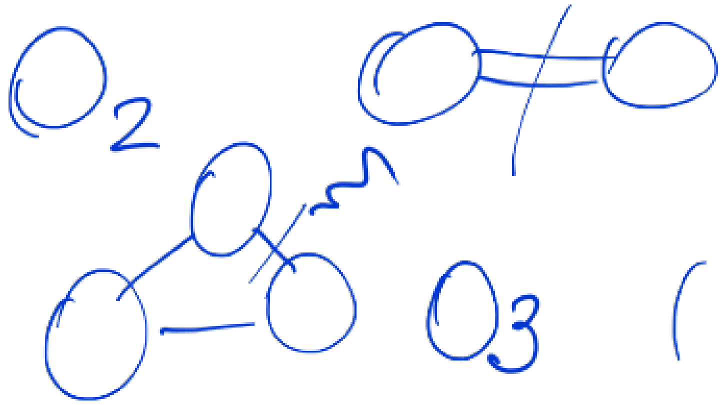
Notas clase f3b-20190423-U03-C01-Segund...



$$\eta = \frac{W_N}{Q_{ABS}} \qquad \eta_f = \frac{W_{neto}}{Q_{cedido}}$$

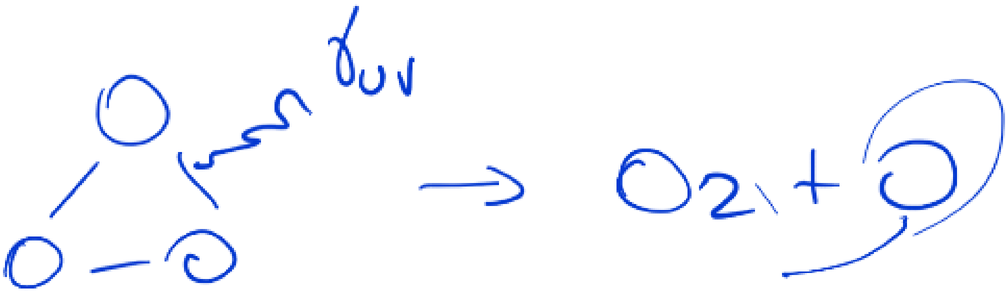
$$COP = \frac{|Q_{ABS}|}{} = \frac{|Q_{ABS}|}{}$$

$W_{neto} \quad Q_{ent} - Q_{abs}.$



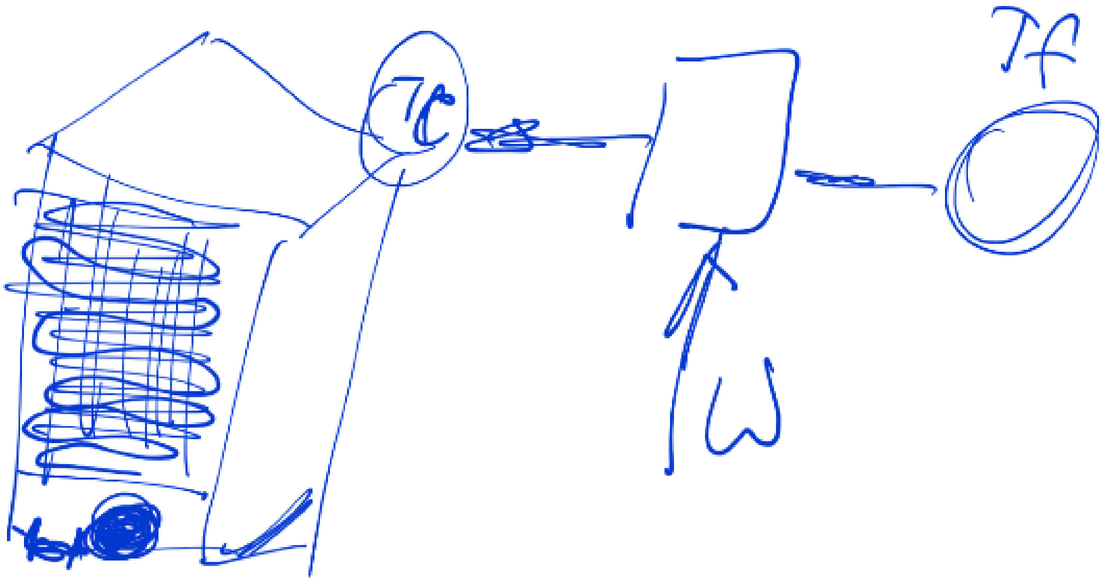
$\simeq 6eV.$

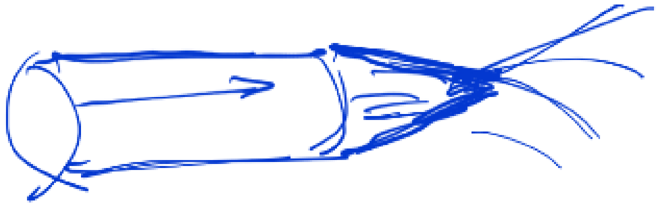
(300 nm y hacia

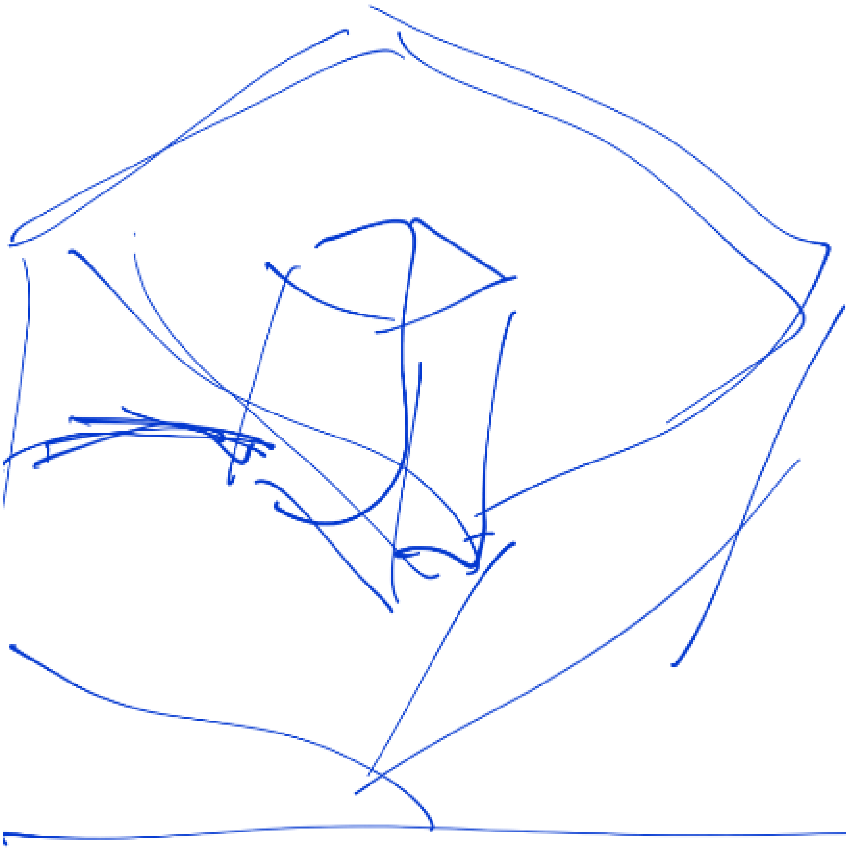


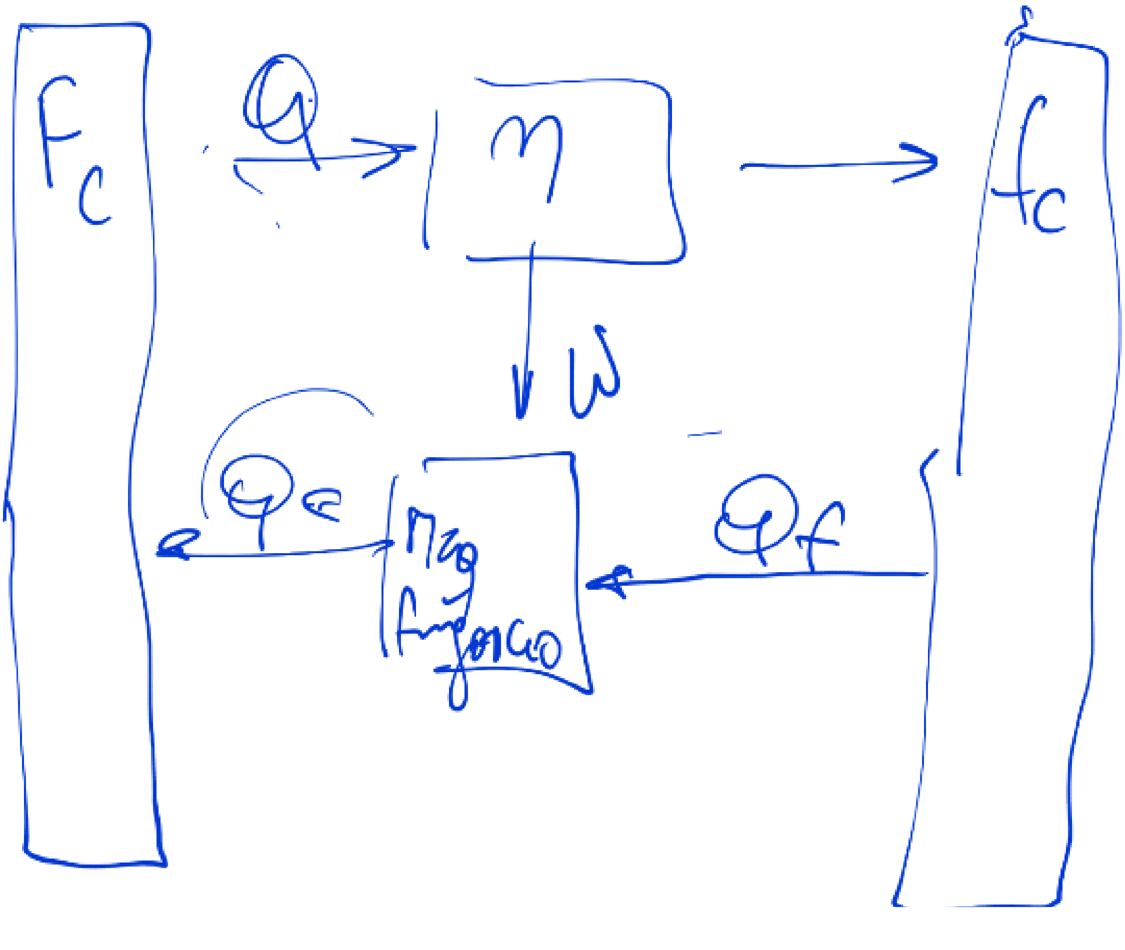
$O + O_2 \longrightarrow O_3$

HFC



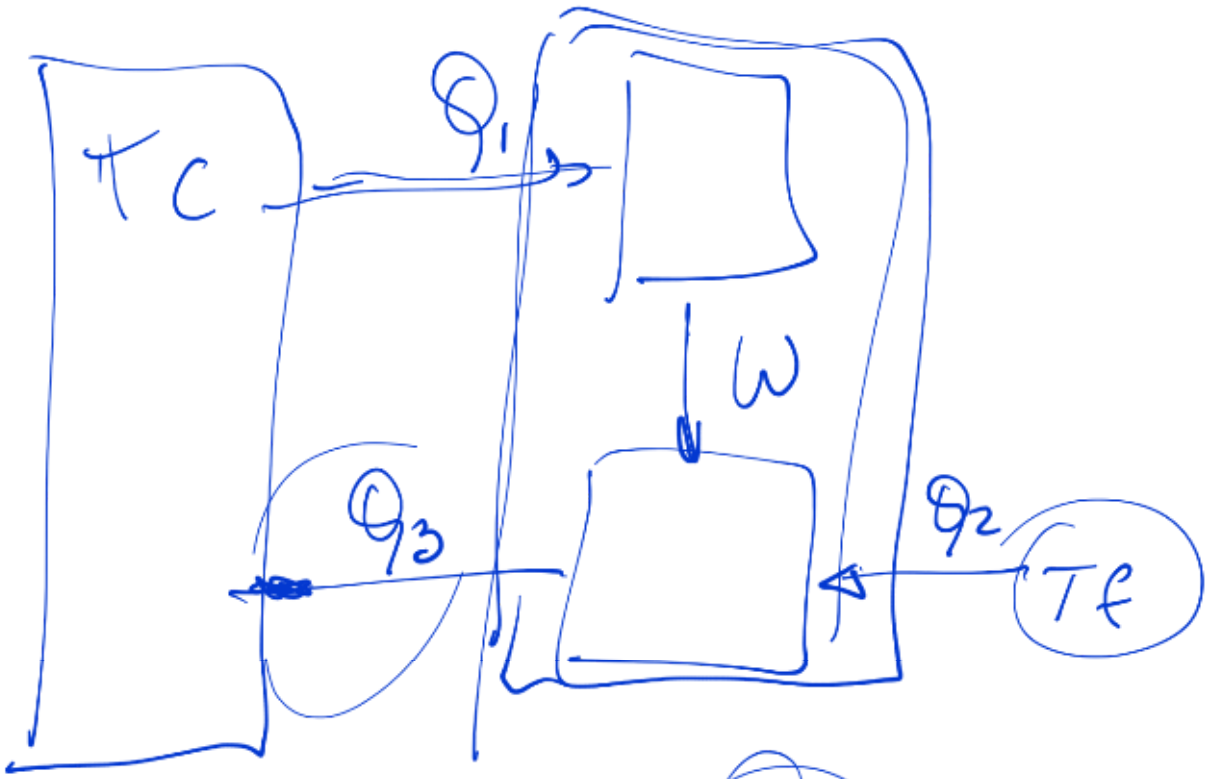





Fc
Q
η
fc
W
Qc
Qf

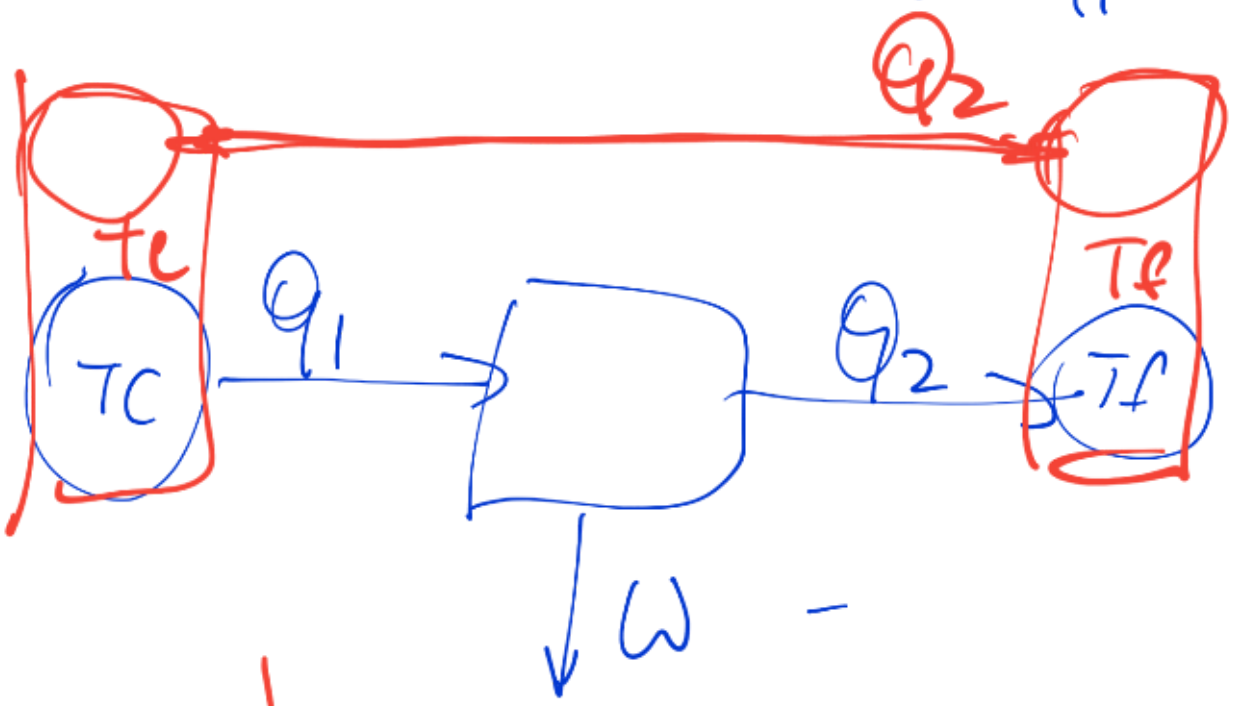
$$\eta = W/Q \Rightarrow W = \eta Q$$

$$\eta = 1 - \frac{Q_{ent}}{Q_{abs}} \leq 1 - \frac{T_f}{T_c}$$

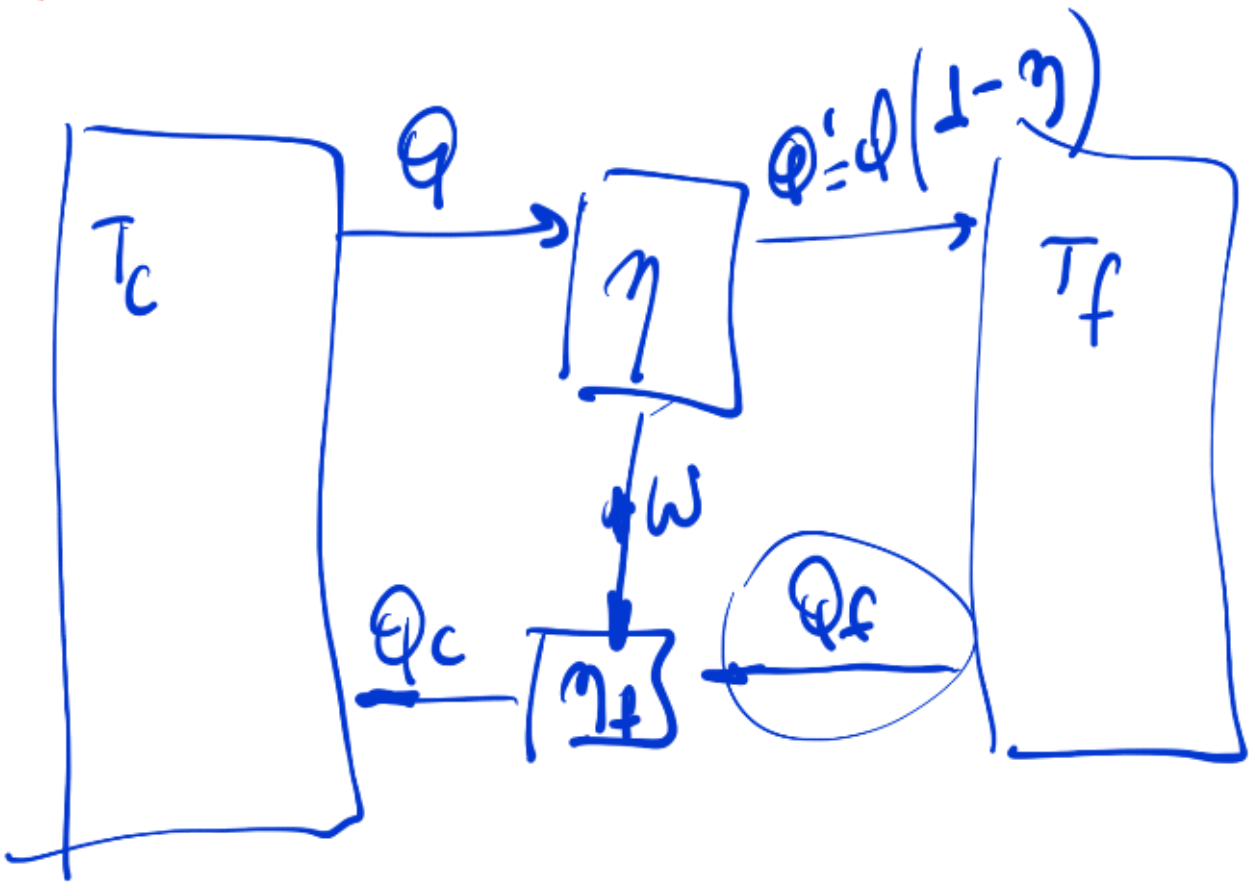


$$Q_3 = W + Q_2 \rightarrow Q_3 = Q_1 + Q_2$$

$$Q_2 = Q_3 - Q_1$$



$$|Q_1 - Q_2| = W$$



$Q = W + Q'$ $(W = \eta Q) \Rightarrow Q' = Q - W$

$$\Rightarrow Q' = Q - \eta Q \Rightarrow Q' = Q(1-\eta)$$

$$Q_c = W + Q_f \qquad \eta_f = W / Q_c$$

$$Q_c = W / \eta_f \Rightarrow \boxed{Q_c = \frac{\eta}{\eta_f} Q}$$

$$Q_c = W + Q_f \Rightarrow Q_c = \eta_f Q_c + Q_f$$

$$\Rightarrow Q_f = Q_c - \eta_f \cdot Q_c = Q_c(1-\eta_f)$$

$$\Rightarrow Q_f = \frac{\eta Q}{\eta_f}(1-\eta_f) \Rightarrow$$

$$Q_f = \eta Q \left(\frac{1}{\eta_f} - 1\right)$$

En la fuente caliente

Q

Q_c

$$\Delta Q_c = Q_c - Q$$

$$= \frac{\eta}{\ } Q - Q$$

$$\Delta Q_c = Q\left(\frac{\eta}{\eta_c} - 1\right)$$

En la fuente fría.

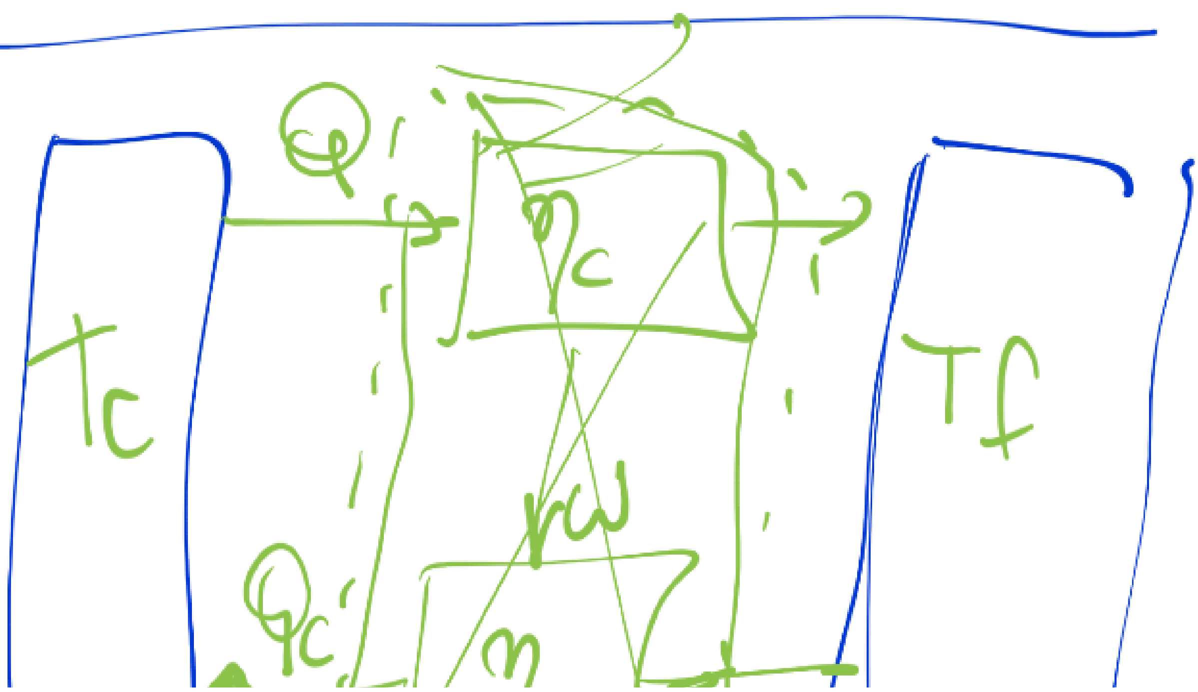
$(1-\eta)Q$

$\eta Q\left(\frac{1}{\eta_c} - 1\right)$

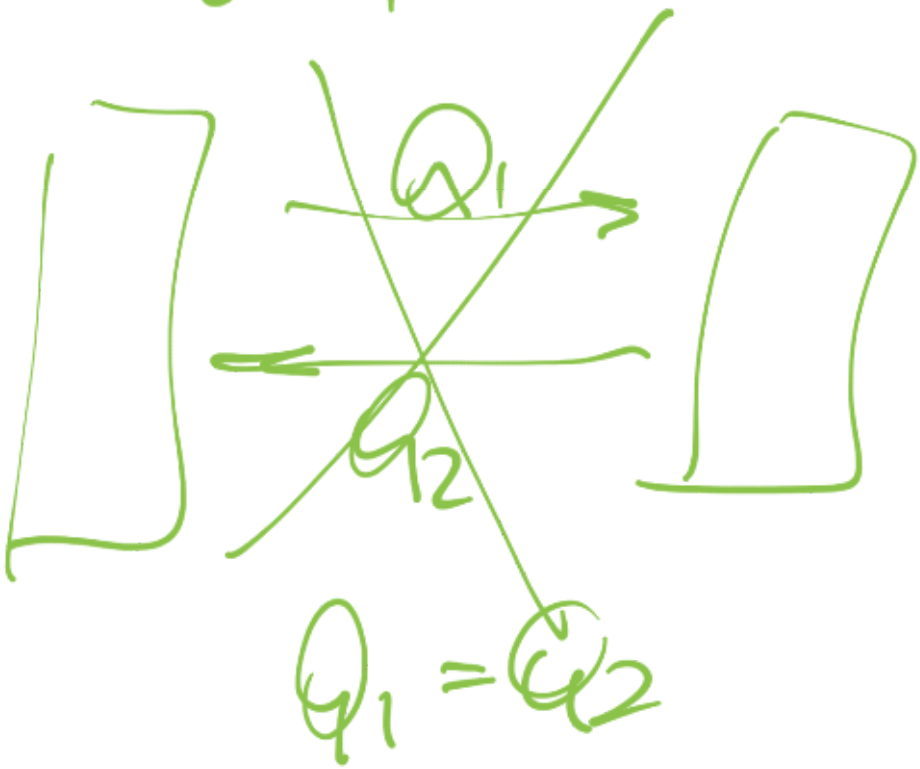
$$\Delta Q_f = \eta Q\left(\frac{1}{\eta_c} - 1\right) - (1-\eta)Q$$

Milagro.

$$\Delta Q_f = -Q\left(\eta/\eta_c - 1\right)$$



$Q_C = Q$



$Q_1 = Q_2$