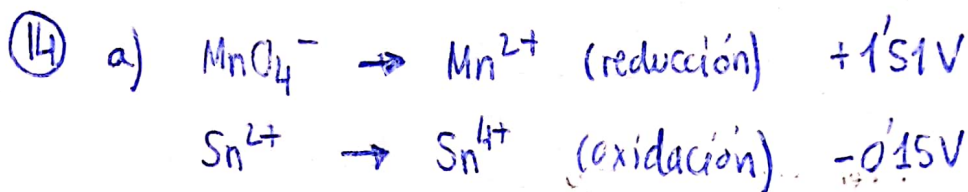
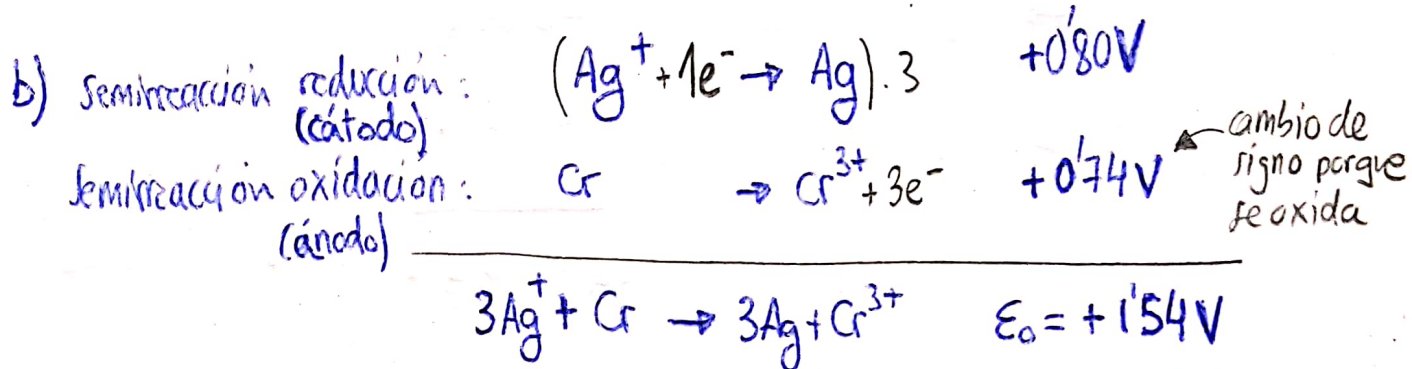
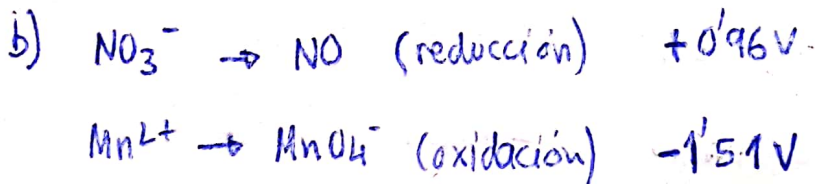


Ejercicios Pilas resueltos.

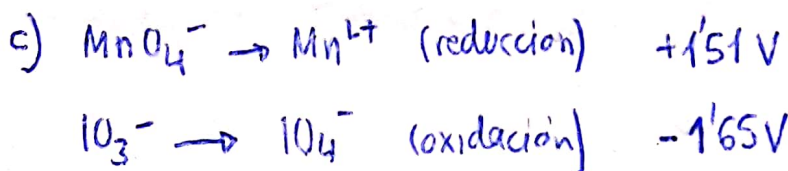
- ⑫ a) Para elegir la pila del potencial más elevado, elijo la sustancia que tiende más a la reducción ($\text{Ag}^+/\text{Ag} + 0'80\text{V}$) y la que tiende más a la oxidación ($\text{Cr}^{3+}/\text{Cr} - 0'74\text{V}$)



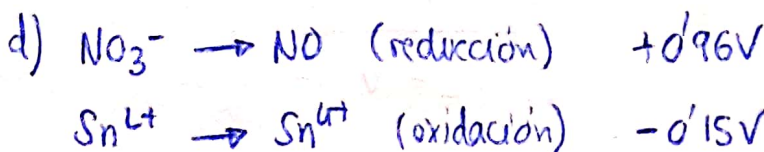
$E_0 = +1'36\text{V} \rightarrow$ sí se produce



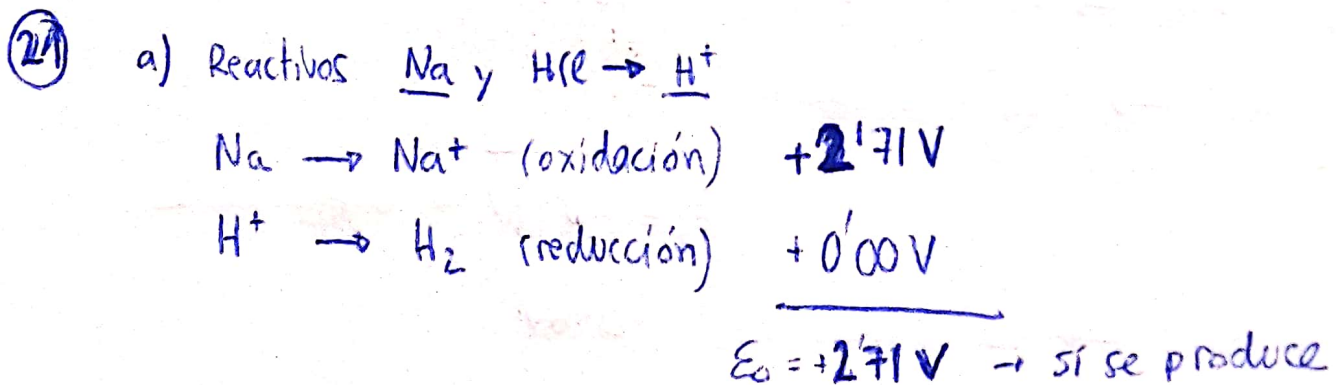
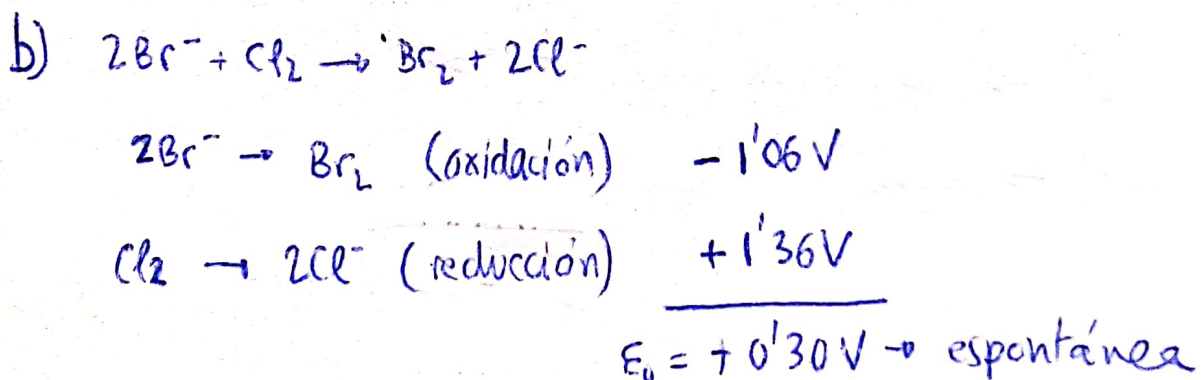
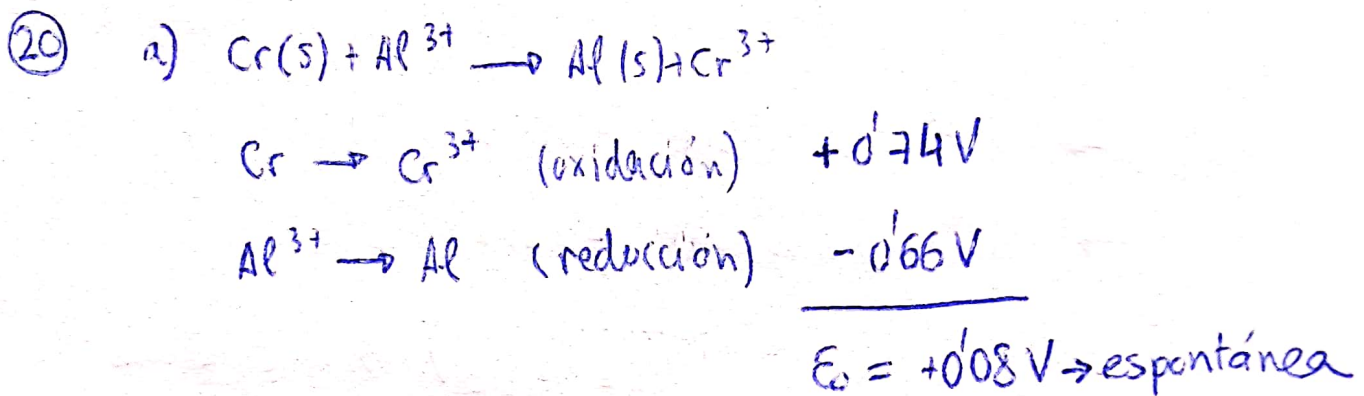
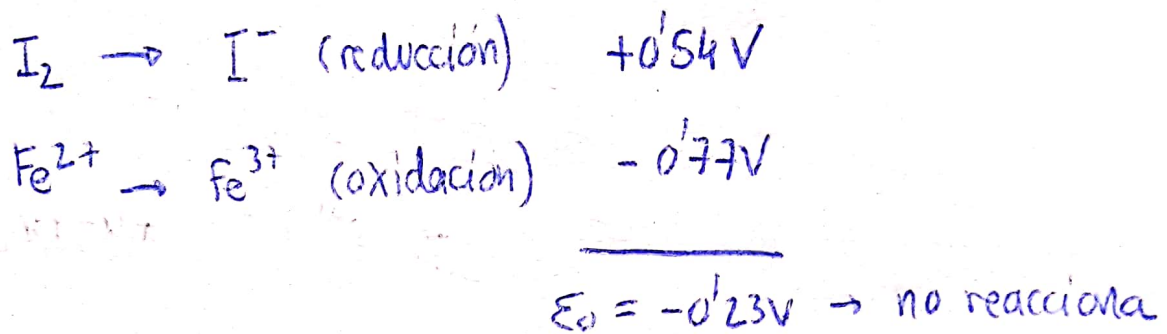
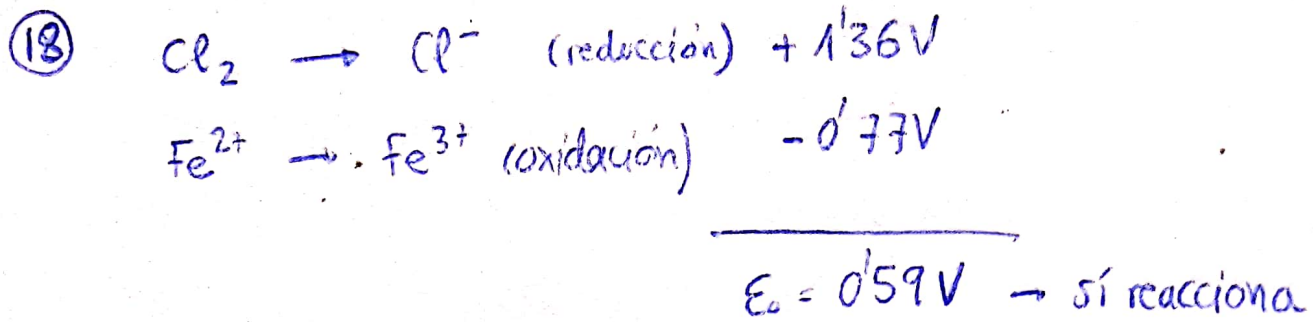
$E_0 = -0'55\text{V} \rightarrow$ no se produce



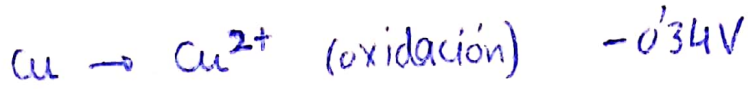
$E_0 = -0'14\text{V} \rightarrow$ no se produce



$E_0 = +0'81\text{V} \rightarrow$ sí se produce

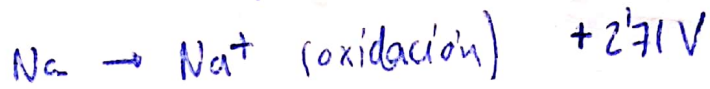


21) b) Reactivos: Cu y HCl → H⁺ :



$$\underline{\varepsilon_0 = -0'34\text{V}} \rightarrow \text{no se produce}$$

c) Reactivos Na y Cu²⁺ :



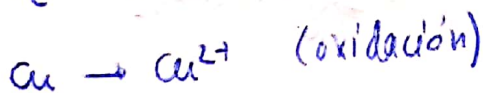
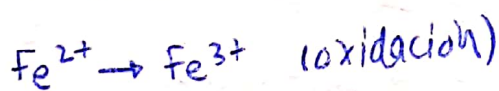
$$\underline{\varepsilon_0 = +3'05} \rightarrow \text{sí se produce}$$

23) a) $\text{Fe}^{2+} + \text{Cu} \rightarrow \text{Fe} + \text{Cu}^{2+}$



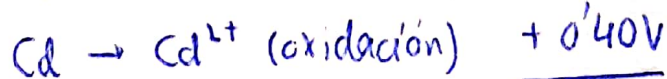
$$\underline{\varepsilon_0 = -0'78\text{V}} \rightarrow \text{no espontánea}$$

b) $\text{Fe}^{2+} + \text{Cu} \rightarrow \text{Fe}^{3+} + \text{Cu}^{2+}$



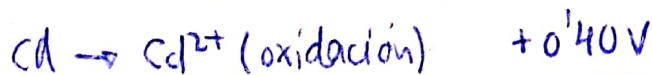
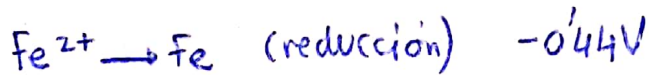
} no puede ocurrir porque una debe oxidarse y la otra reducirse, no pueden oxidarse ambas.

c) $\text{Fe}^{3+} + \text{Cd} \rightarrow \text{Fe}^{2+} + \text{Cd}^{2+}$



$$\underline{\varepsilon_0 = +1'17\text{V}} \rightarrow \text{espontánea}$$

d) $\text{Fe}^{2+} + \text{Cd} \rightarrow \text{Fe} + \text{Cd}^{2+}$

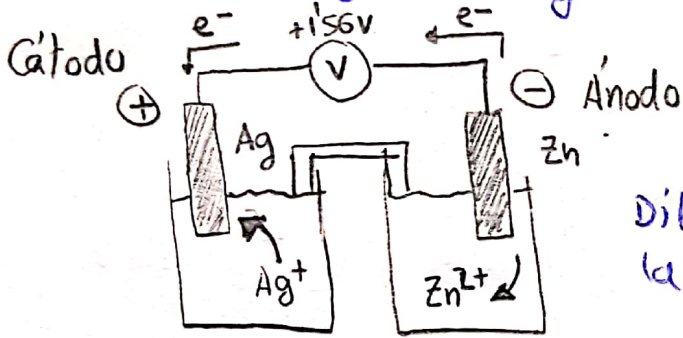
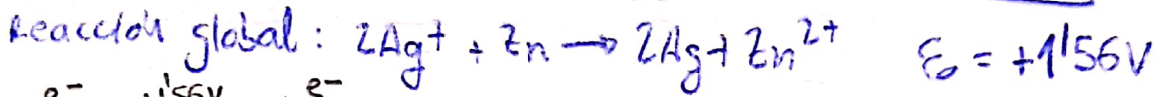
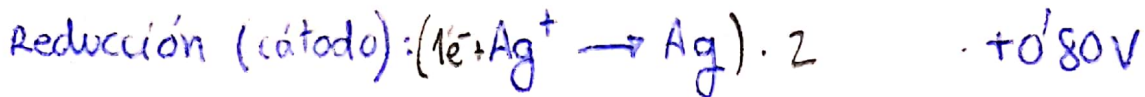


$$\underline{\varepsilon_0 = -0'04\text{V}} \rightarrow \text{no espontánea}$$

27) $E_0 \text{ Ag}^+/\text{Ag} = +0.80\text{V}$ $E_0 \text{ Zn}^{2+}/\text{Zn} = -0.76\text{V}$ (miró potenciales en la tabla)

↓ se reducirá

↓ se oxidará



Dibujo de la pila

31) $E_0 \text{ Ag}^+/\text{Ag} = +0.80\text{V}$ $E_0 \text{ Pb}^{2+}/\text{Pb} = -0.13\text{V}$

↓ se reducirá

↓ se oxidará

