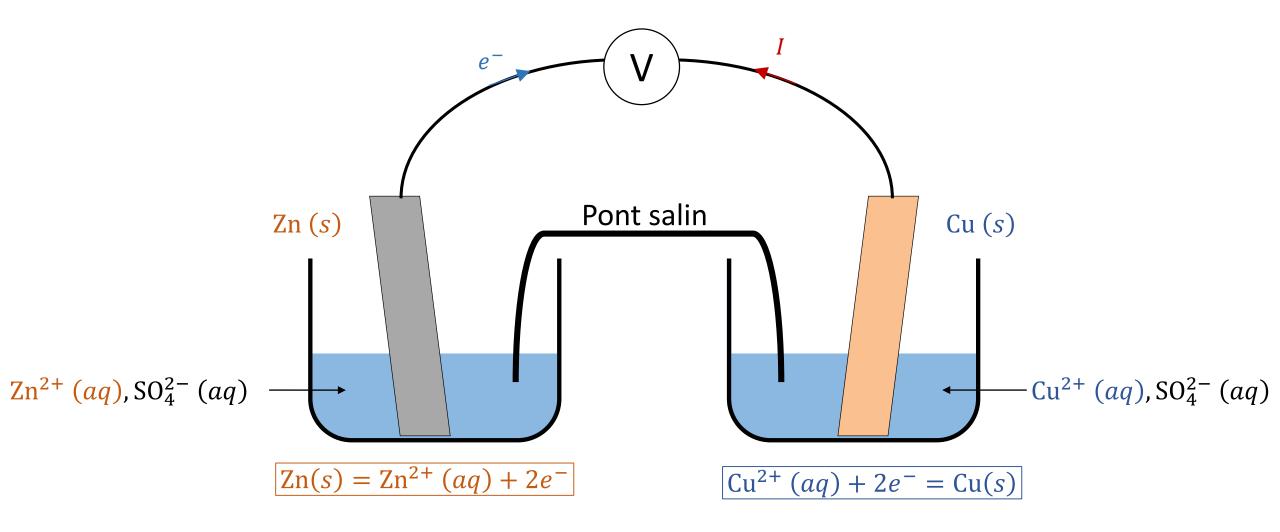
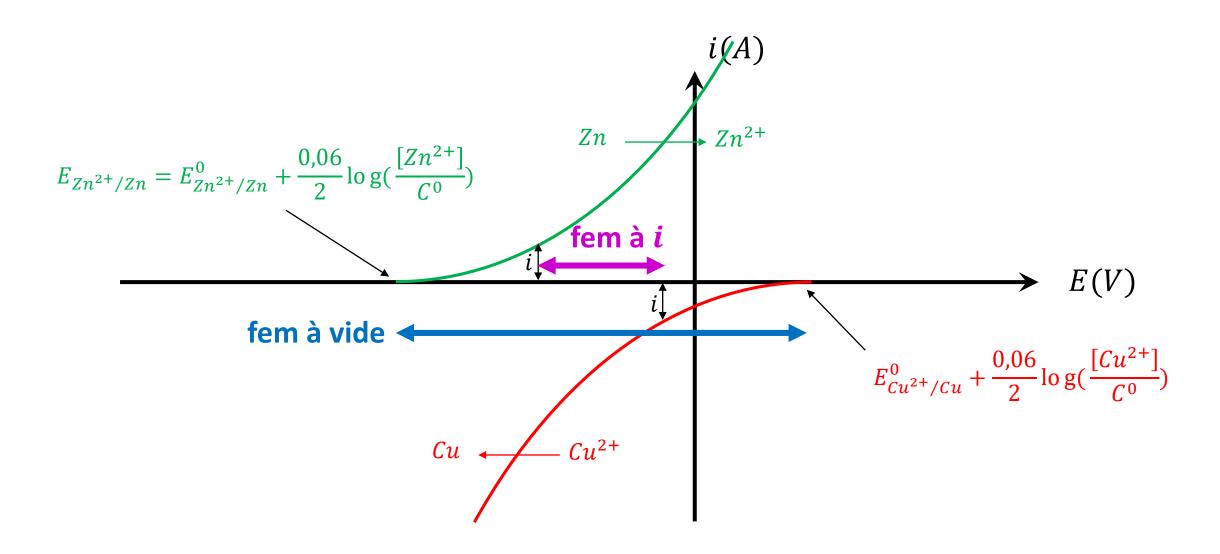
# LC26 : Conversion réciproque d'énergie électrique en énergie mécanique

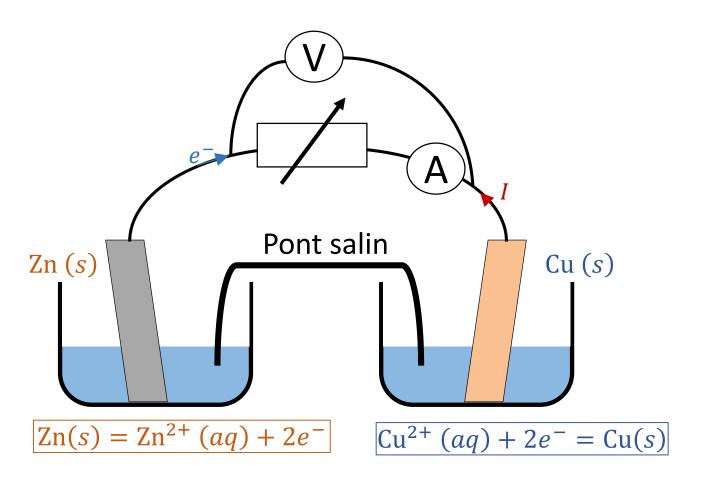
## La pile Daniell



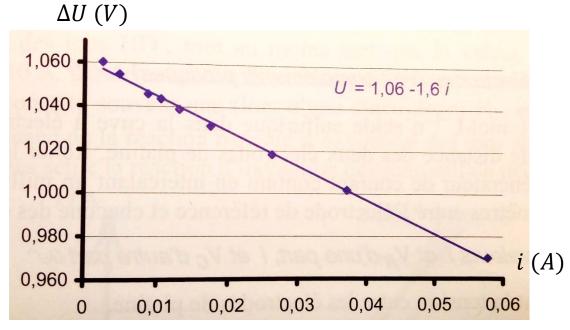
### Courbes intensité-potentiel pour la pile Daniell



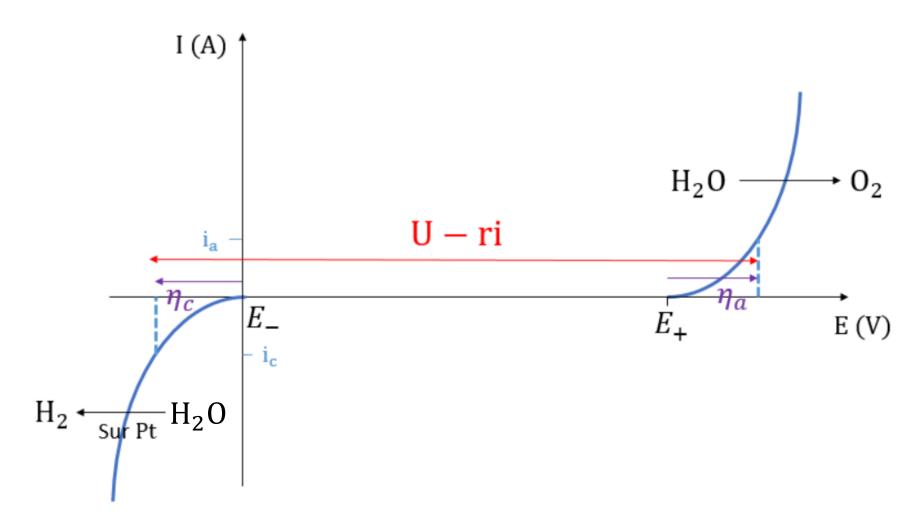
### Mesure de la résistance interne de la pile Daniell



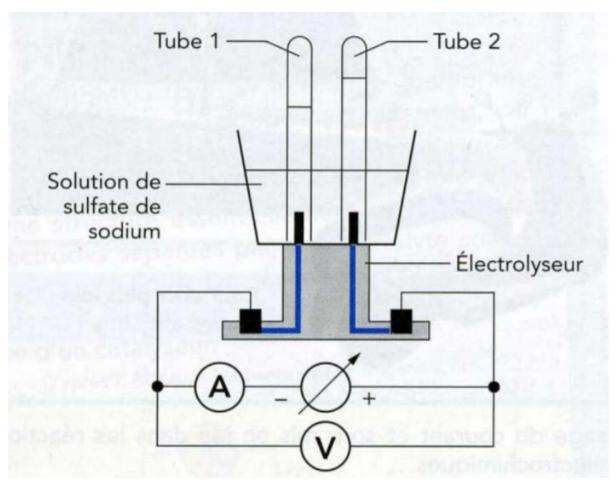
$$\Delta U = e - ri$$



# Electrolyse de l'eau

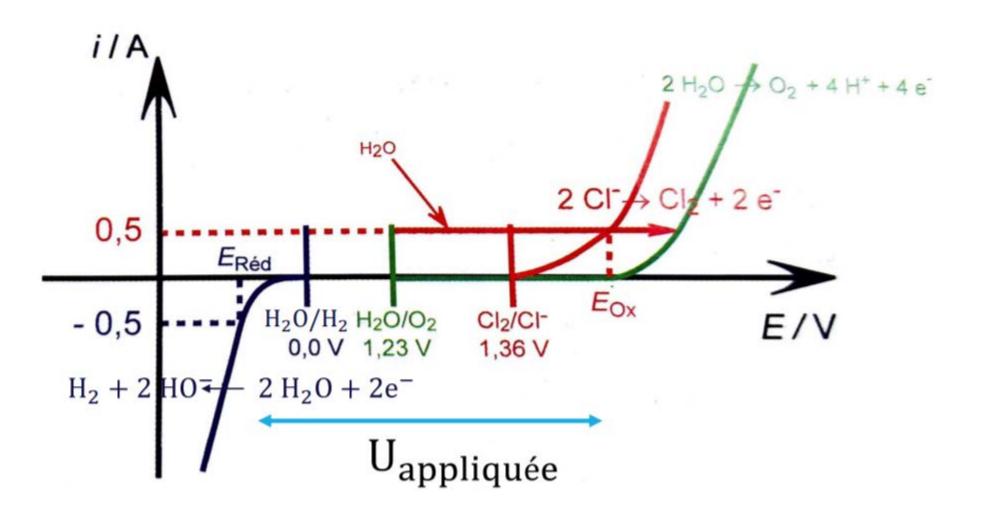


# Electrolyse de l'eau

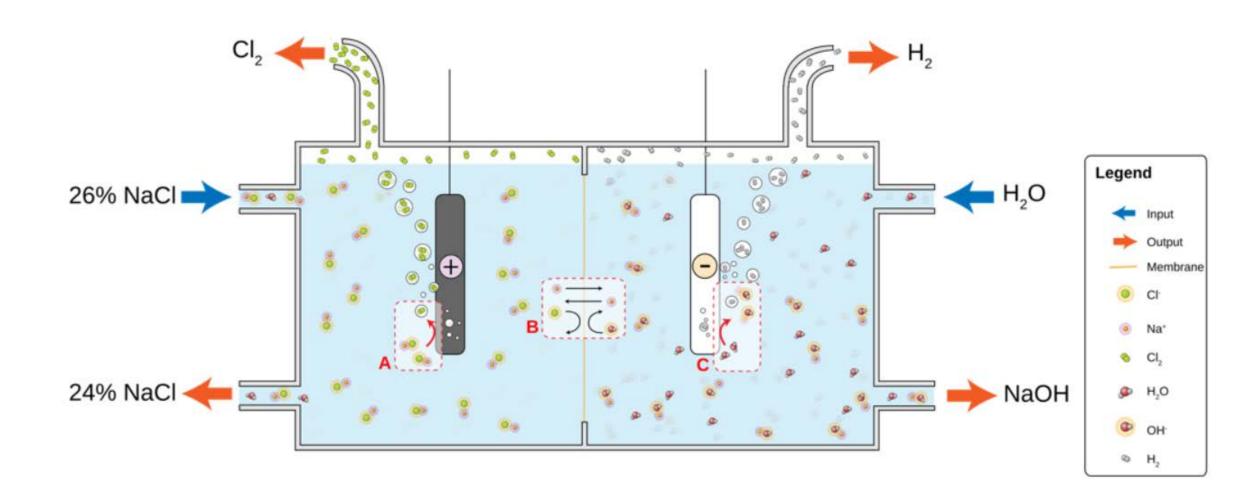




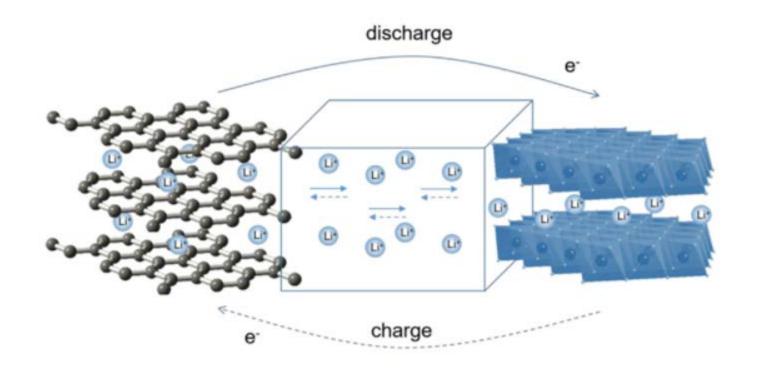
#### Synthèse du dichlore



## Synthèse du dichlore (membrane)



#### Principe fonctionnement accumulateur lithium-ion



Anode en graphite C et LiC<sub>6</sub> Électrolyte LiPF<sub>6</sub> et solvant orga

Cathode LiCoO<sub>2</sub> et Li<sub>1-x</sub>CoO<sub>2</sub>

### Principe fonctionnement accumulateur lithium-ion

Charge 
$$x \operatorname{Li}^+ + x \operatorname{e}^- + C(s) = \operatorname{Li}_x C(s)$$
 LiCoO<sub>2</sub> = Li<sub>1-x</sub>CoO<sub>2</sub> +  $x \operatorname{Li}^+ + x \operatorname{e}^-$ 

Décharge 
$$\text{Li}_x\text{C}(s) = x \text{Li}^+ + x e^- + 6\text{C}(s) \xrightarrow{x e^-} \text{Li}_{1-x}\text{CoO}_2 + x \text{Li}^+ + x e^- = \text{LiCoO}_2$$

Énergie massique	Puissance massique	Force électromotrice	Cyclabilité
120 Wh. kg <sup>-1</sup>	250 W. kg <sup>-1</sup>	4,30 V	1200