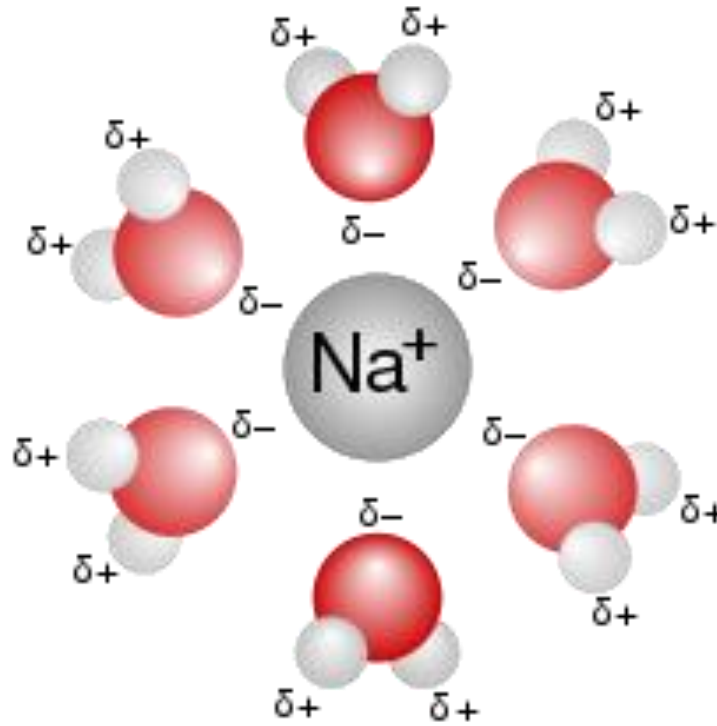



LC15 : Solvents

Solvatation des espèces chargées



Classification des solvants selon leur polarité

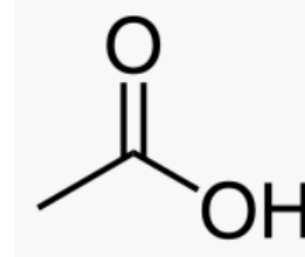
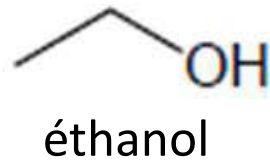
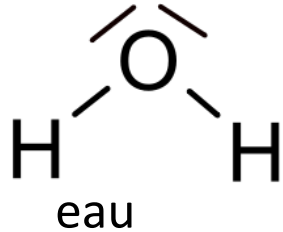
« Polarité » ↗



Solvant	μ / D	ϵ_r
cyclohexane	0	2,0
éther diéthylique	1,15	4,2
acétate d'éthyle	1,78	6,0
cyclohexanone	2,90	18,3
acétone	2,88	20,7
éthanol	1,69	24,8
méthanol	1,70	32,7
eau	1,85	78,5

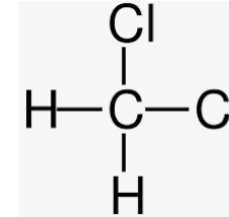
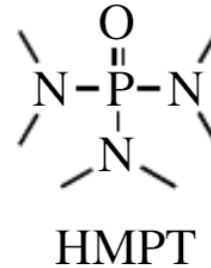
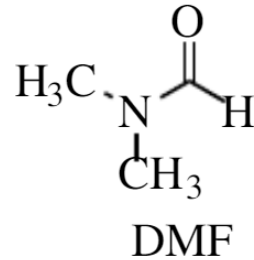
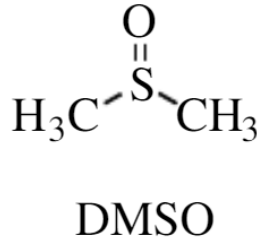
Classification des solvants

- Solvants polaires protiques



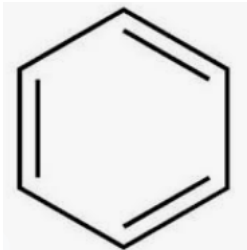
Acide éthanoïque

- Solvants polaires aprotiques

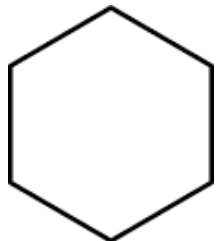


dichlorométhane

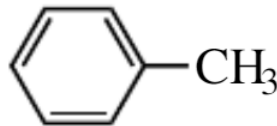
- Solvants apolaires aprotiques



Benzène



cyclohexane



Toluène

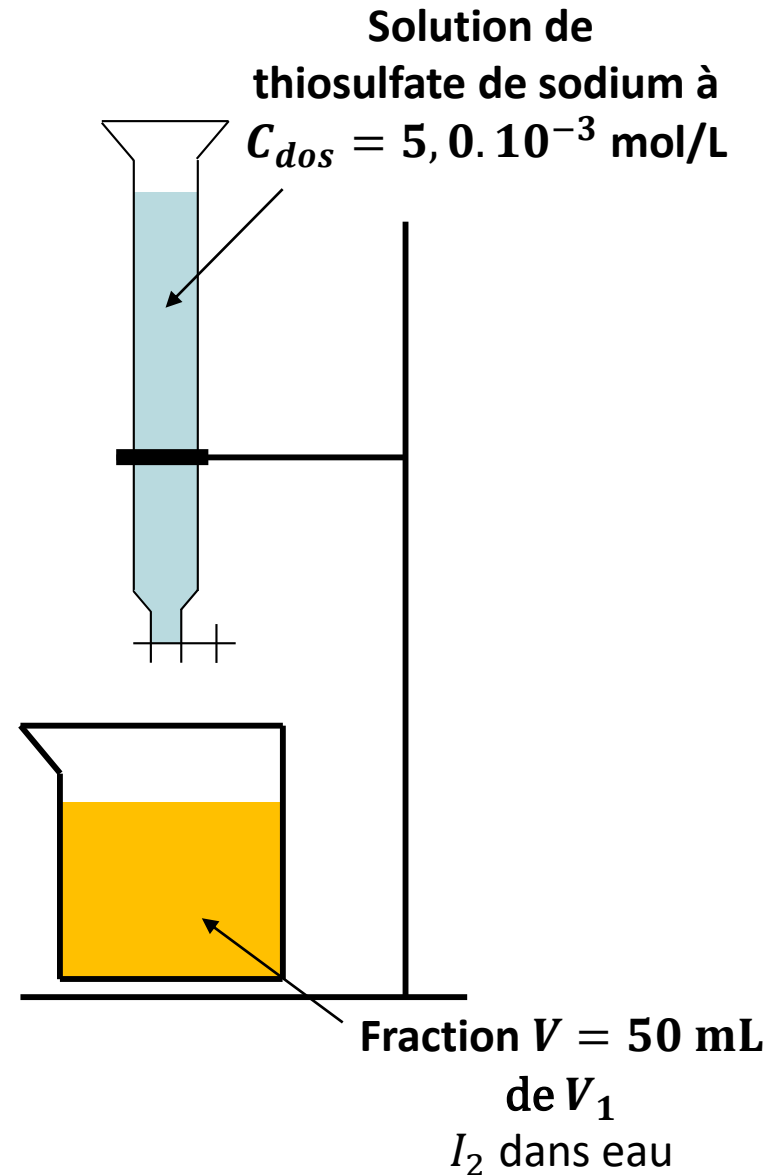
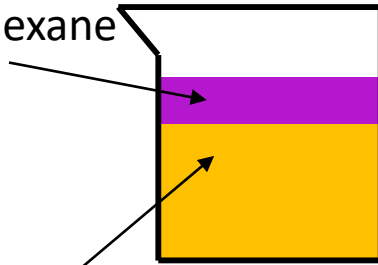
Coefficient de partage

Quantité de I_2
introduite connue

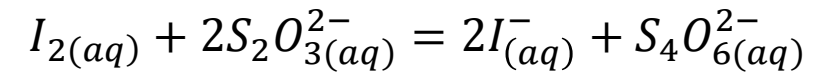
$$n_{I_2, tot} = 9,84 \cdot 10^{-4} \text{ mol}$$

$V_0 = 20 \text{ mL}$
 I_2 dans cyclohexane

$V_1 = 200 \text{ mL}$
 I_2 dans eau



Réaction support de dosage :

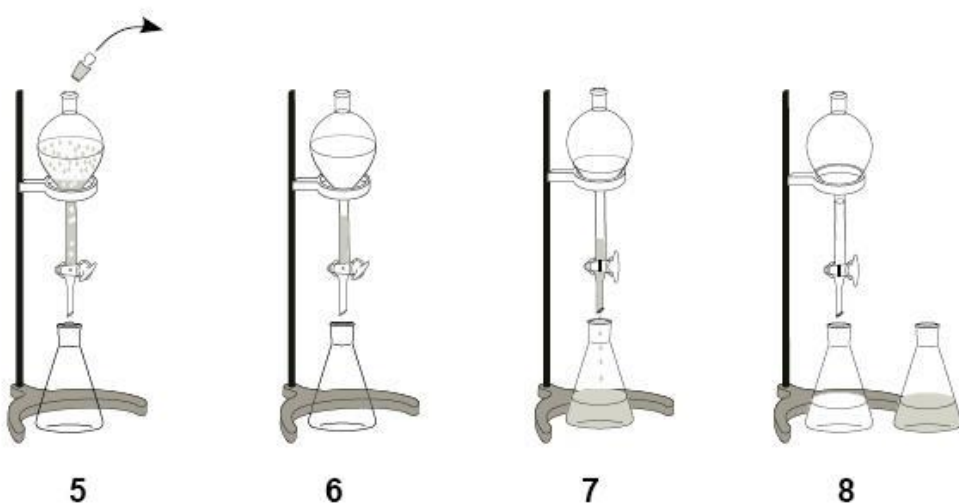
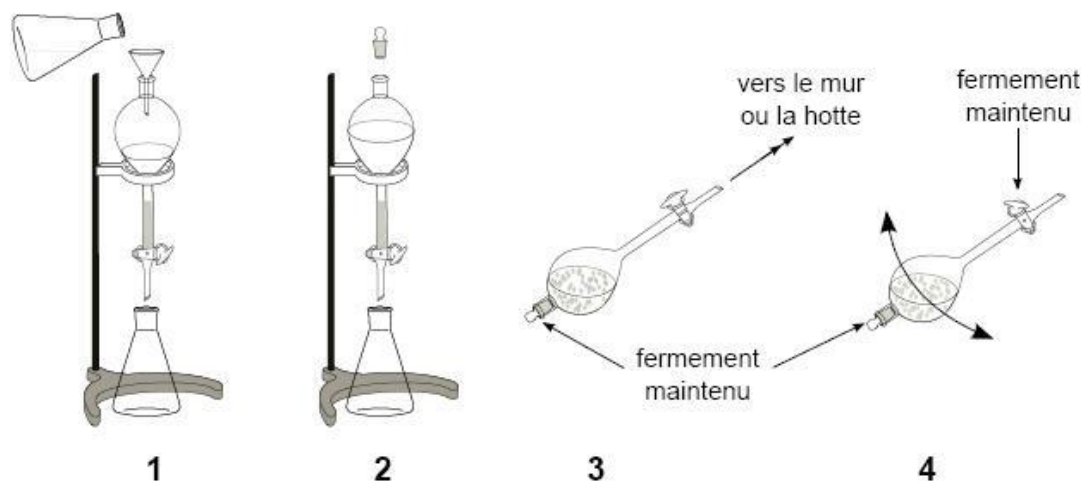


$$\Rightarrow n_{I_2, aq} = \frac{n_{S_2O_3^{2-}}}{2}$$

$$P = \frac{\frac{m_{I_2, tot}}{M_{I_2, tot}} - 4 \frac{V_{eq} C_{dos}}{2}}{V_0} \cdot \frac{V_0}{4 \frac{V_{eq} C_{dos}}{2V}}$$

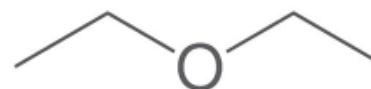
Extraction liquide-liquide

M. Blanchard-Desce, Chimie organique expérimentale, Hermann

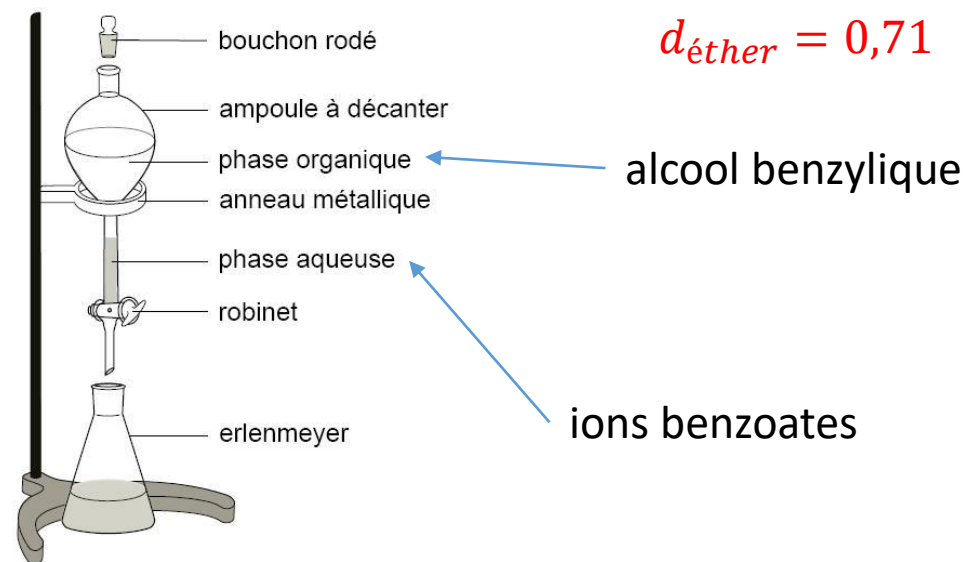


Protocole :

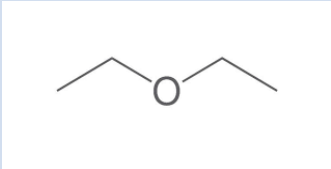
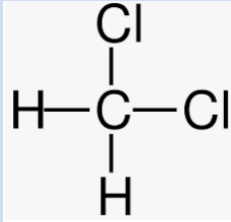
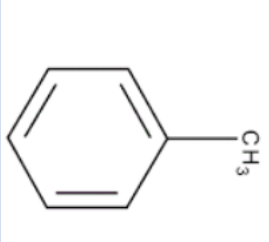
- On verse le brut réactionnel aqueux ainsi que de l'éther dans l'ampoule à décanter



- On procède comme sur le schéma et on récupère la phase organique et la phase aqueuse



Choix du solvant pour l'alcool benzylique

Éther diétylique	Dichlorométhane	Toluène
		
$T_{\text{fus}} = 35\text{ °C}$	$T_{\text{fus}} = 40\text{ °C}$	$T_{\text{fus}} = 110\text{ °C}$
Nocif en cas d'ingestion	CMR	CMR