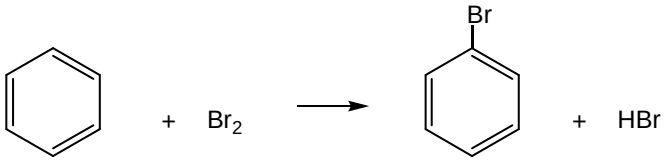
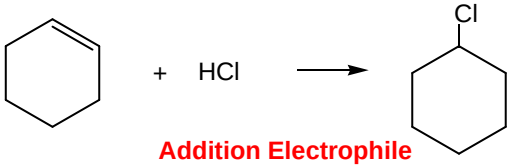
Correction des Travaux dirigés (2010-2011)

Exercice n°1

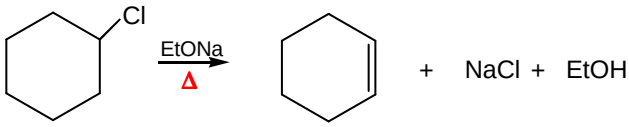
Substitution Nucléophile



Substitution Electrophile



Addition Electrophile



Elimination

Exercice n°2

Solvants apolaires	**Solvants polaires protiques**	**Solvants polaires aprotiques**
Hexane	**Méthanol**	**$(CH_3)_2S=O$: DMSO**
CCl_4	**H_2O**	**$(CH_3)_2N$-CHO : DMF**
		CH_3-CN
		Oxyde de diéthyle

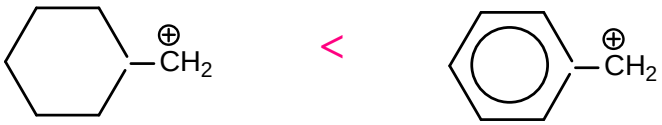
Exercice n°3

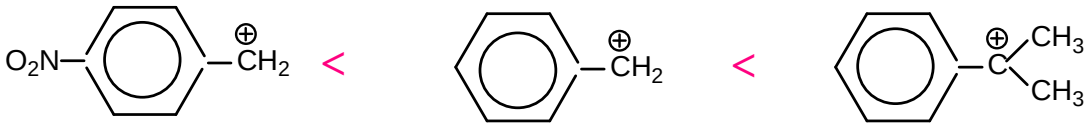
Classement des carbocations par ordre de **stabilité croissante** :

1) $H\text{-}\overset{\oplus}{C}H_2$ < $H_3C\text{-}\overset{\oplus}{C}H_2$ < $H_3C\text{-}CH(CH_3)\text{-}\overset{\oplus}{C}H_2$

2) $H_3C\text{-}\overset{\oplus}{C}H_2$ < $(CH_3)_2\overset{\oplus}{C}H$ < $(CH_3)_3\overset{\oplus}{C}$

3) $H_3C\text{-}\overset{\oplus}{C}H\text{-}CH(Cl)\text{-}CH_3$ < $H_3C\text{-}\overset{\oplus}{C}H\text{-}CH_2\text{-}CH_2(Cl)$ < $H_3C\text{-}\overset{\oplus}{C}H\text{-}CH_2\text{-}CH_3$

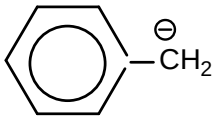
4) 

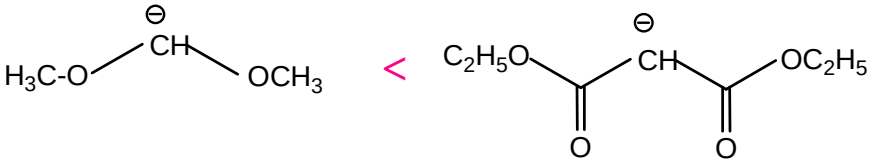
5) 

Exercice n°4

Classement des carbanions par ordre de **stabilité croissante** :

1) $(CH_3)_2\overset{\ominus}{C}H < H_3C\text{-}\overset{\ominus}{C}H_2 < Cl\text{-}CH_2\text{-}\overset{\ominus}{C}H_2$

2) $H_2C{=}CH\text{-}CH_2\text{-}\overset{\ominus}{C}H_2 < H_2C{=}C\text{-}\overset{\ominus}{C}H_2 <$ 

3) 

Exercice n°5

Nucléophile	Electrophile
$CH_2{=}CH_2$ Electrons π	**$AlCl_3$** Acide de Lewis
CH_3O^- Charge négative	**NO_2^+** Charge positive
HO^- Charge négative	**H_3O^+** Charge positive
NH_3 Doublet libre	
C_6H_6 Electrons π	