

# ALCOOLS

DÉFINITION

NOMENCLATURE

RÉACTIVITÉ

ACIDITÉ - RÉACTION AVEC LES BASES

FORMATION ET RÉACTION DES ALCOOLATES

ACTION DES ACIDES MINÉRAUX

ACIDES HALOGÉNÉS -  $\text{H}_2\text{SO}_4$  ,  $\text{H}_3\text{PO}_4$

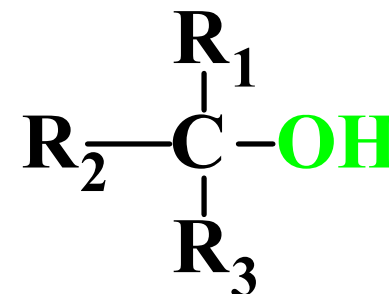
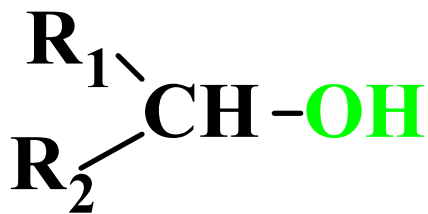
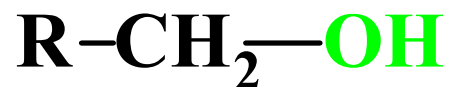
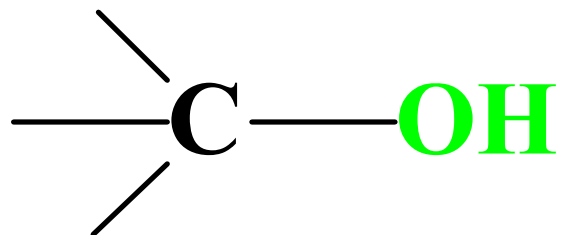
RÉACTIVITÉ DÛE À LA NUCLÉOPHILIE DE L'OXYGÈNE

RÉACTION AVEC  $\text{PX}_3$  ou  $\text{SOCl}_2$

FORMATION DES SULFONATES

OXYDATION

# ALCOOLS



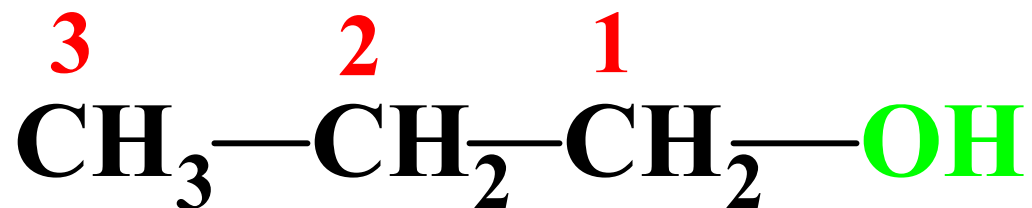
**alcool primaire**

**alcool secondaire**

**alcool tertiaire**

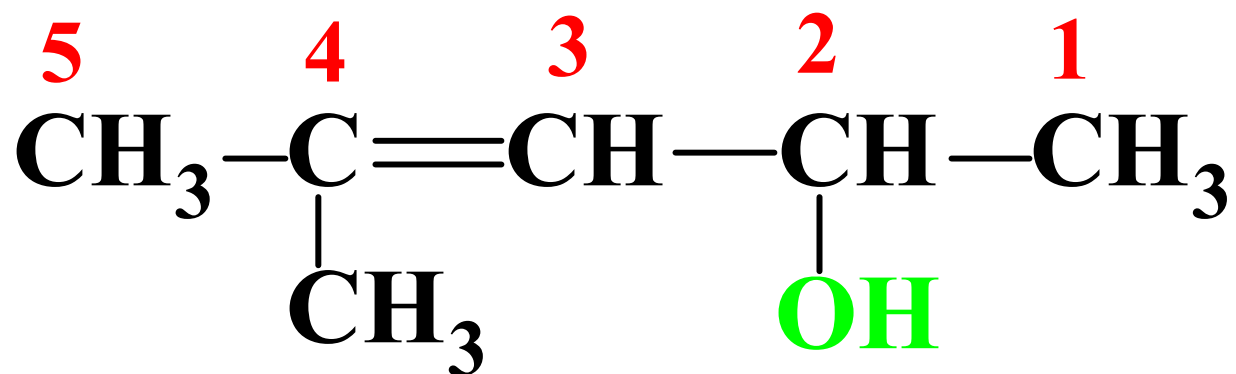
**R, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> = radical hydrocarboné**

# NOMENCLATURE



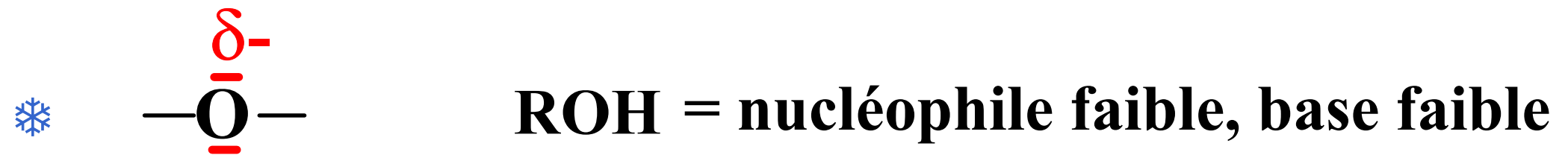
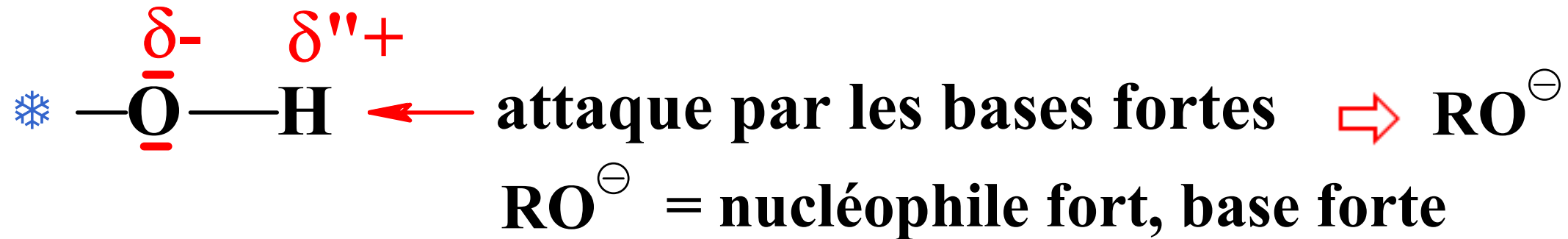
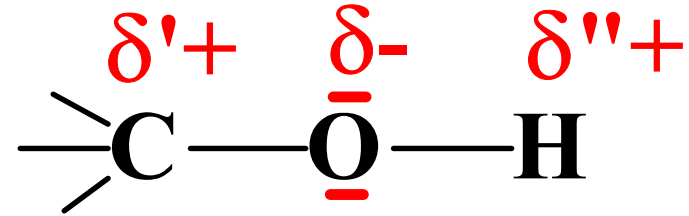
propan-1-ol

hydrocarbure    indice de position    ol



4-méthylpent-3-èn-2-ol

# RÉACTIVITÉ DES ALCOOLS



**MAIS OH "MAUVAIS GROUPE PARTANT**

# ROH RÉACTIF NUCLÉOPHILE

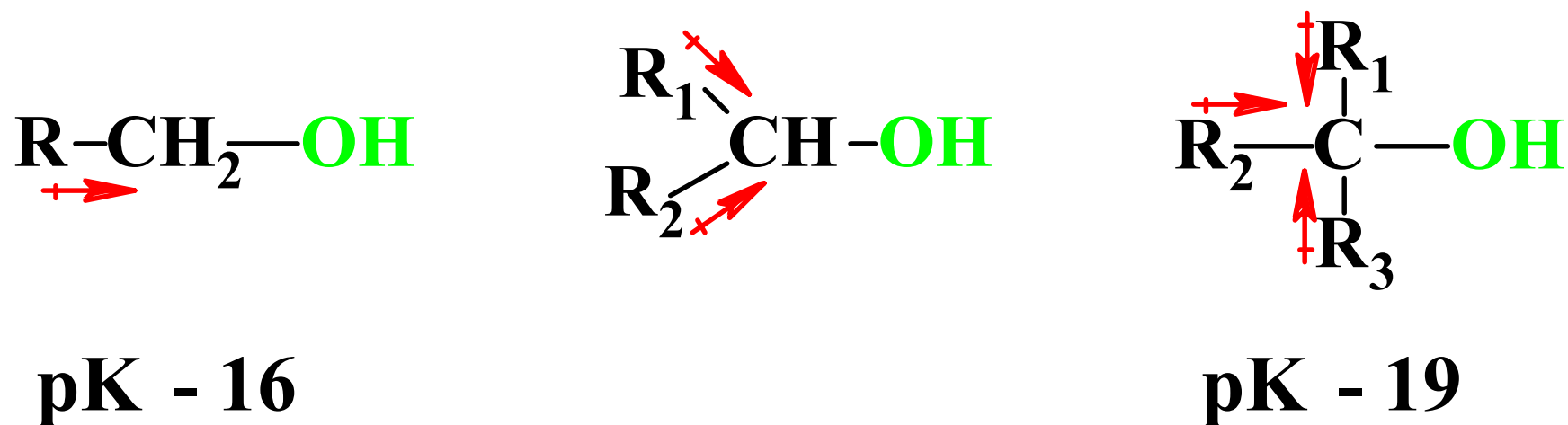
 **ADDITION SUR C INSATURÉ**

 **DÉRIVÉS CARBONYLÉS**

 **SUBSTITUTION SUR C INSATURÉ**

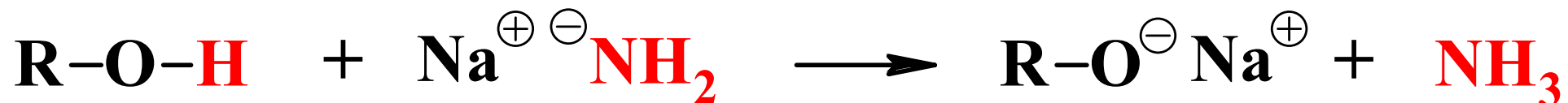
 **ACIDES ET DÉRIVÉS**

# ACIDITÉ DES ALCOOLS



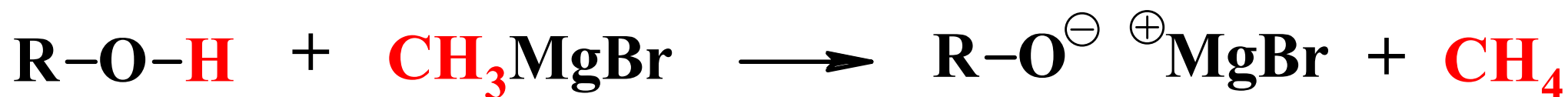
# FORMATION DES ALCOOLATES

## ◆ Action des bases



$$\text{pK ROH / RO}^- - 17$$

$$\text{pK NH}_3 / \text{NH}_2^- - 35$$



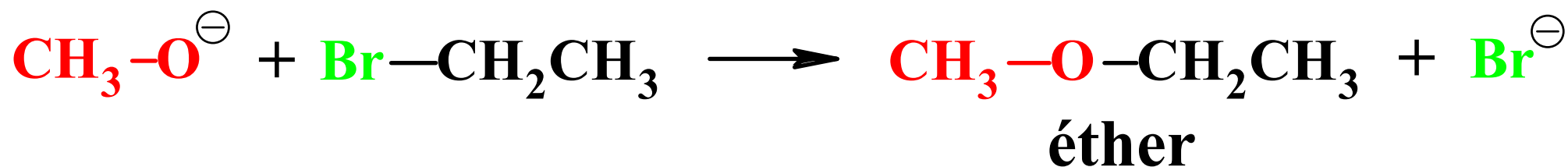
$$\text{pK CH}_4 / \text{CH}_3^- - 50$$

## ◆ Action des métaux alcalins (Na, K)



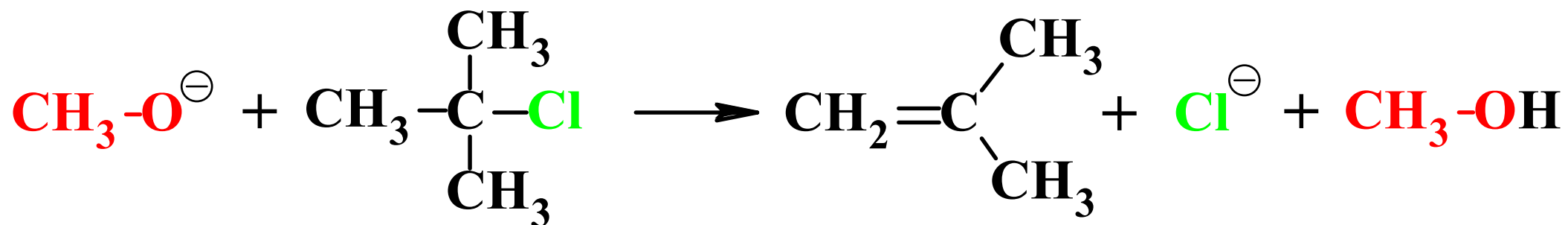
# RÉACTION DES ALCOOLATES

◆ Nucléophile  $\Rightarrow$  Substitution



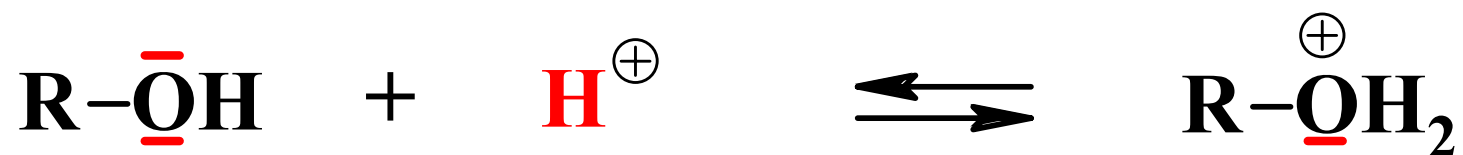
Réaction de WILLIAMSON

◆ Base  $\Rightarrow$  Élimination





# ACTION DES ACIDES MINÉRAUX



◆ SUBSTITUTION



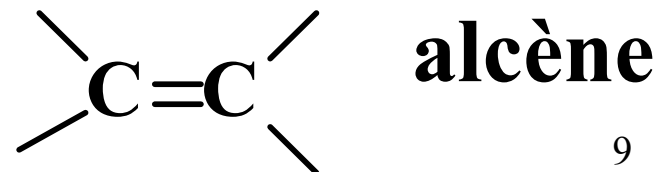
dérivé halogéné



◆ SUBSTITUTION

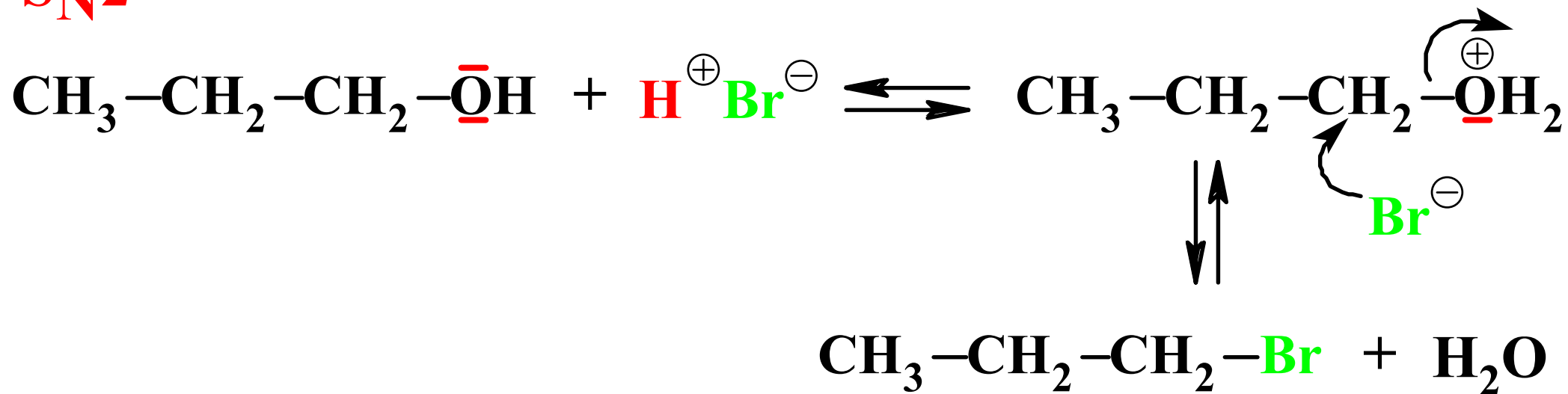


◆ ÉLIMINATION

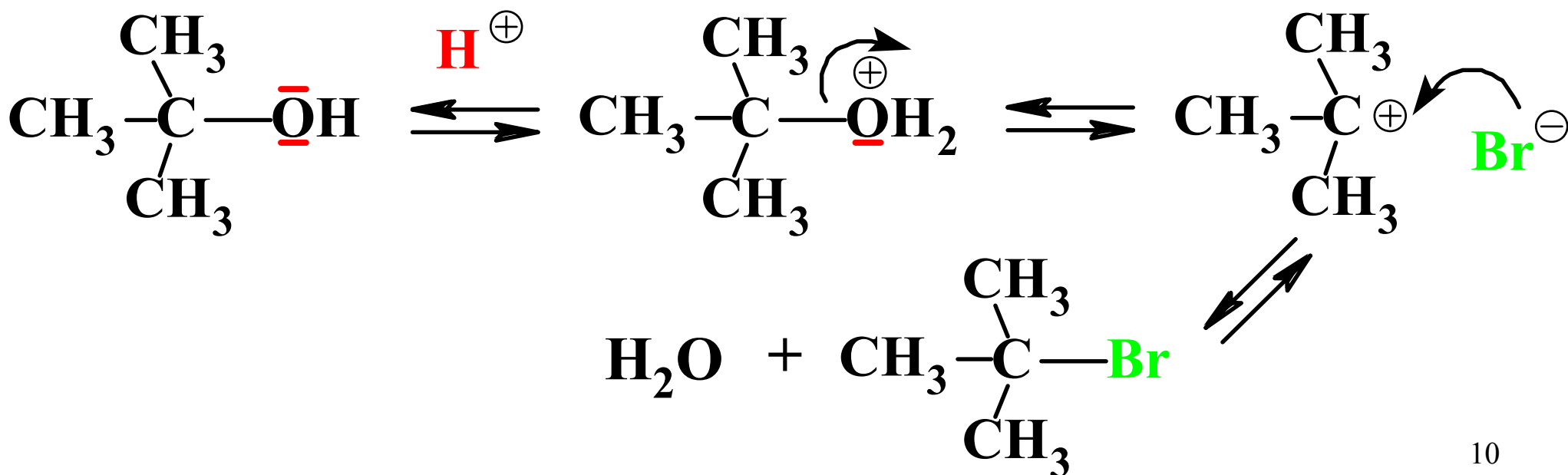


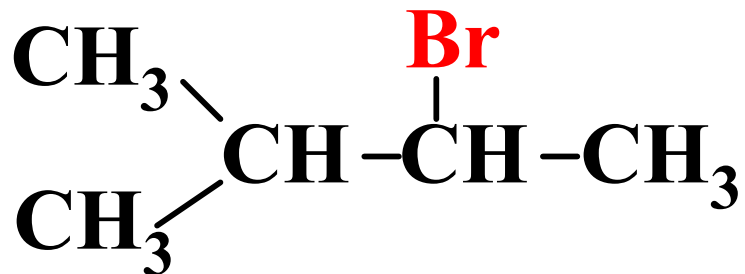
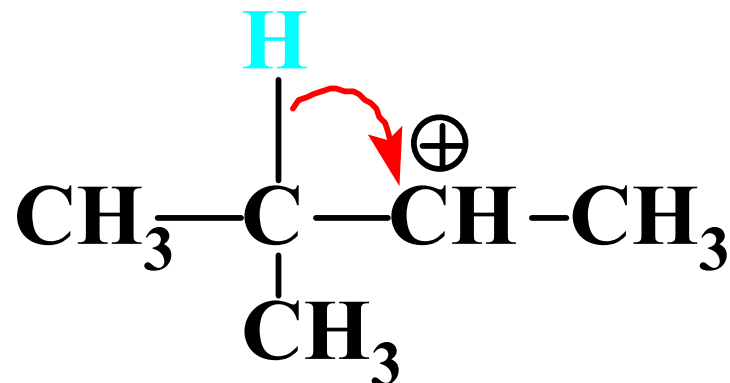
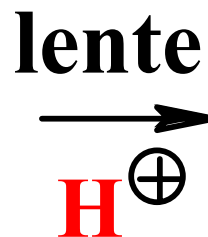
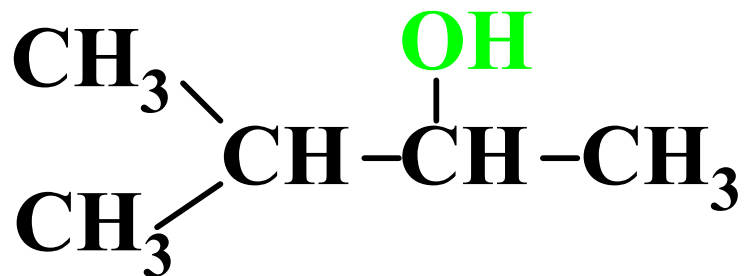
# ACTION DE HCl - HBr - HI

**S<sub>N</sub>2**

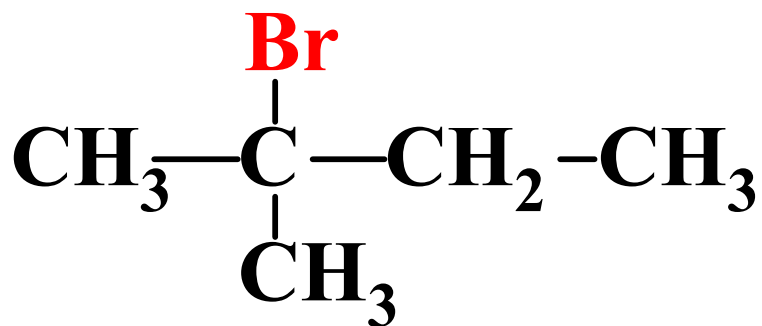
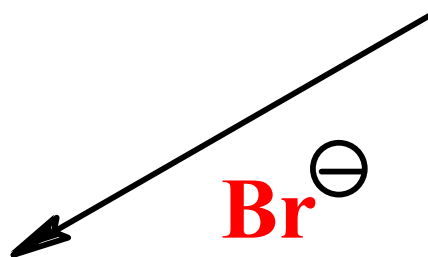


**S<sub>N</sub>1**

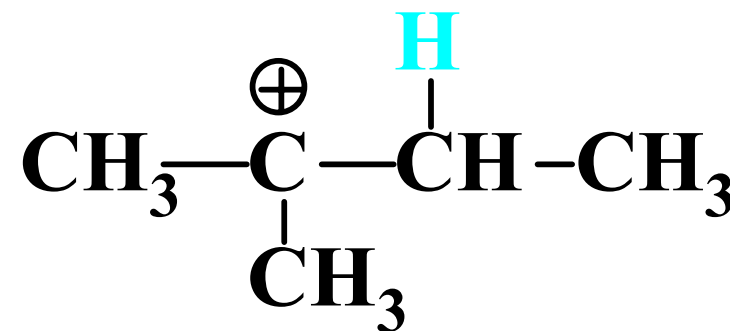




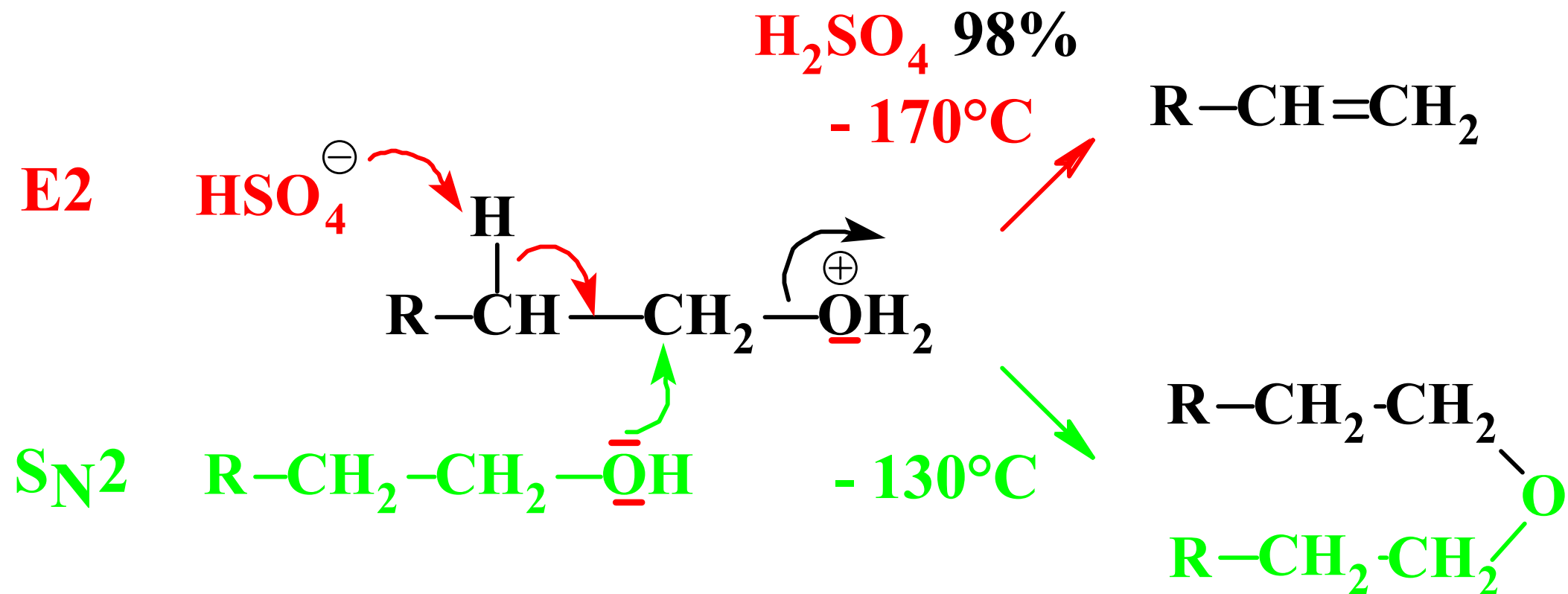
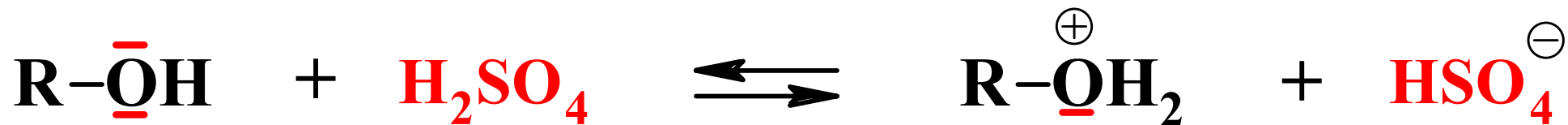
minoritaire



majoritaire

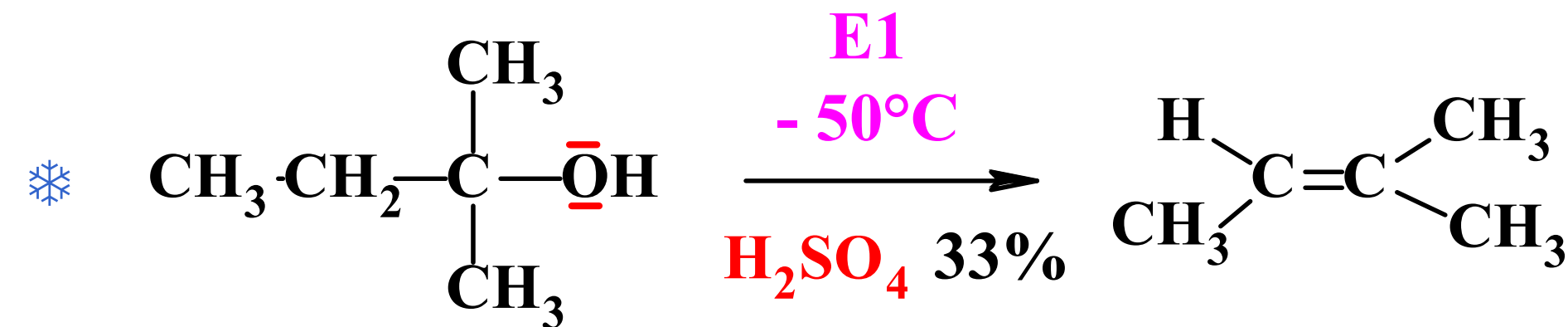
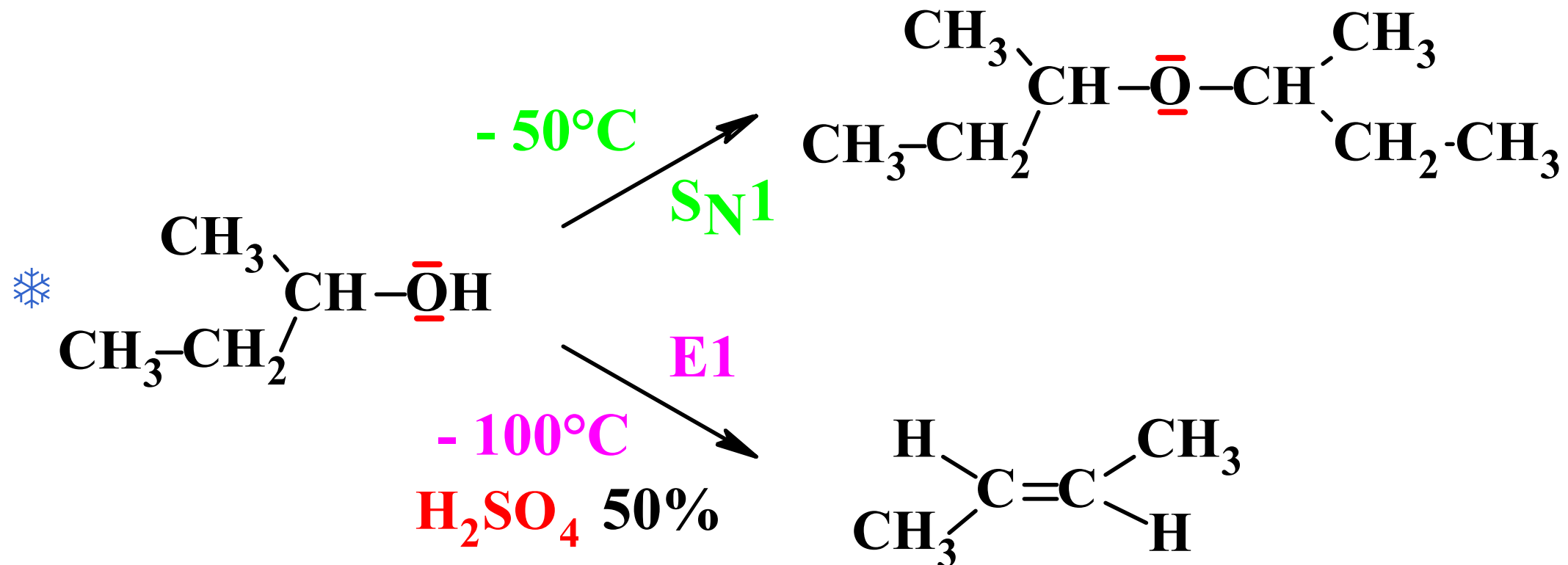


# ACTION DE $\text{H}_2\text{SO}_4$ ou $\text{H}_3\text{PO}_4$

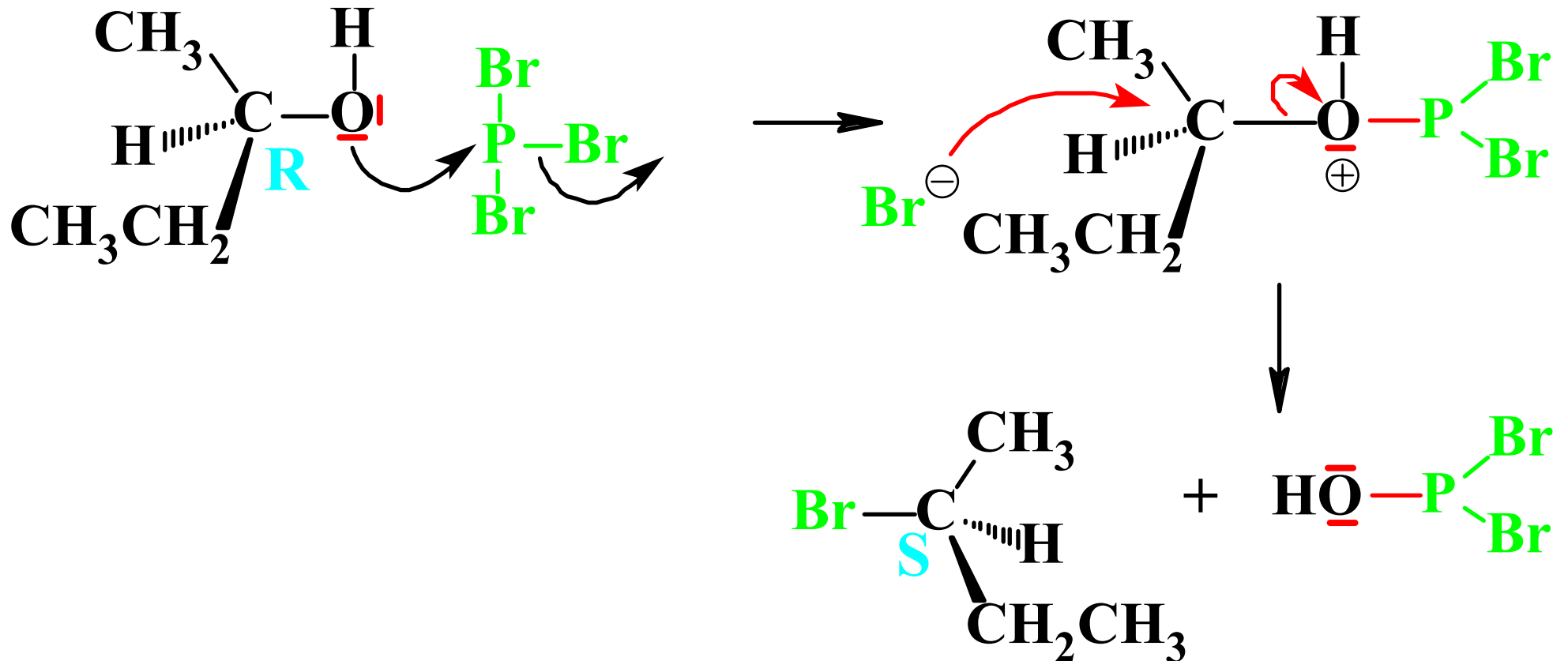
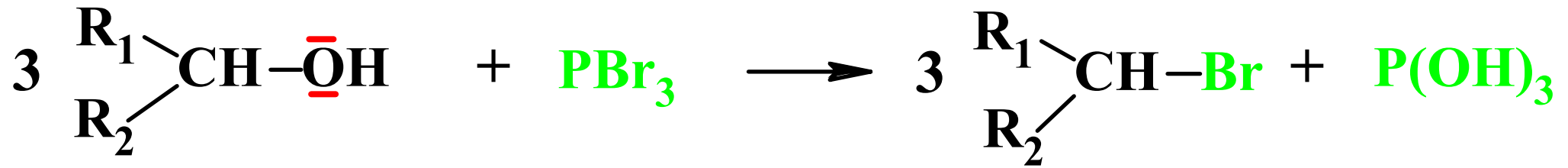


si  $\theta^\circ\text{C}$   $\nearrow$   $\Rightarrow$  **E2**

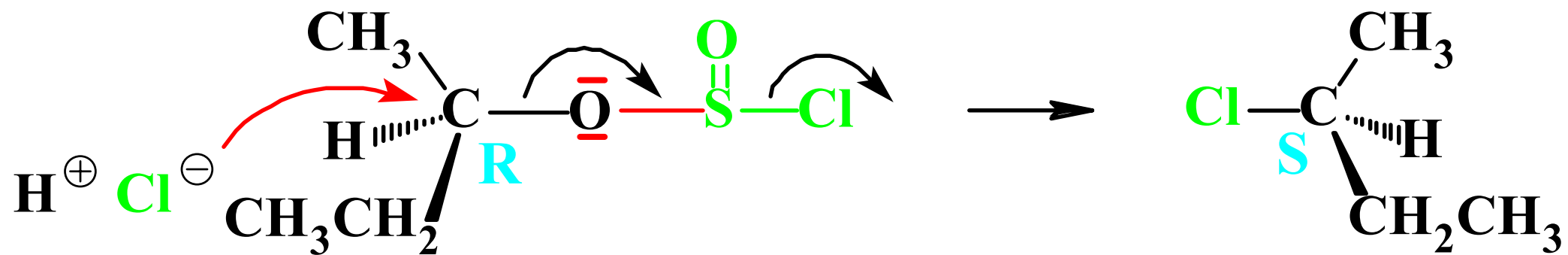
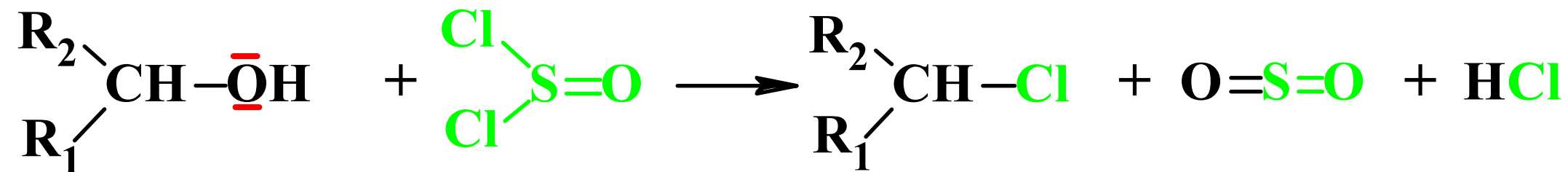
# ACTION DE H<sub>2</sub>SO<sub>4</sub> ou H<sub>3</sub>PO<sub>4</sub>



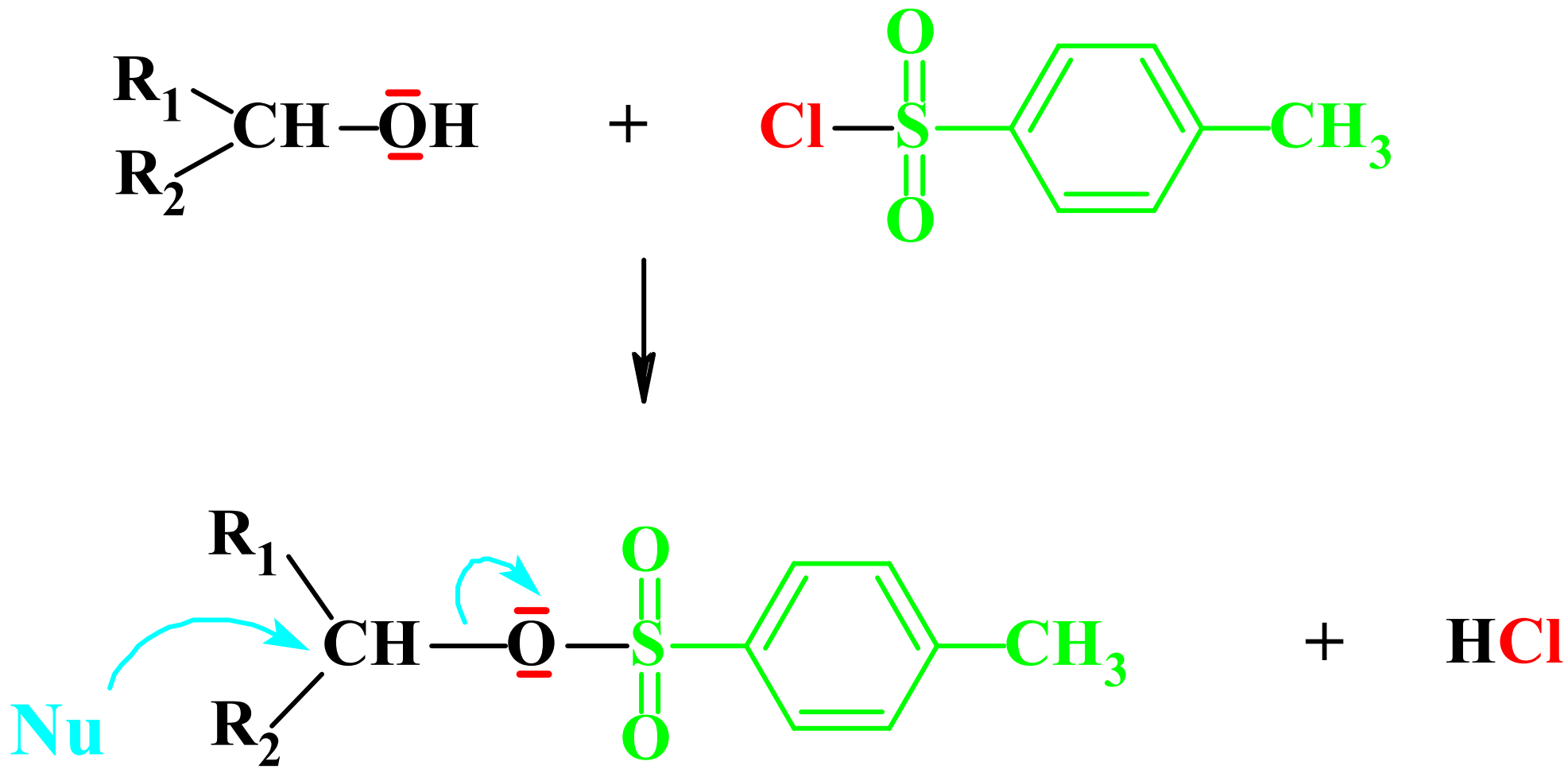
# ACTION DE $\text{PCl}_3$ ou $\text{PBr}_3$



# ACTION DE $\text{SOCl}_2$ (CHLORURE DE THIONYLE)



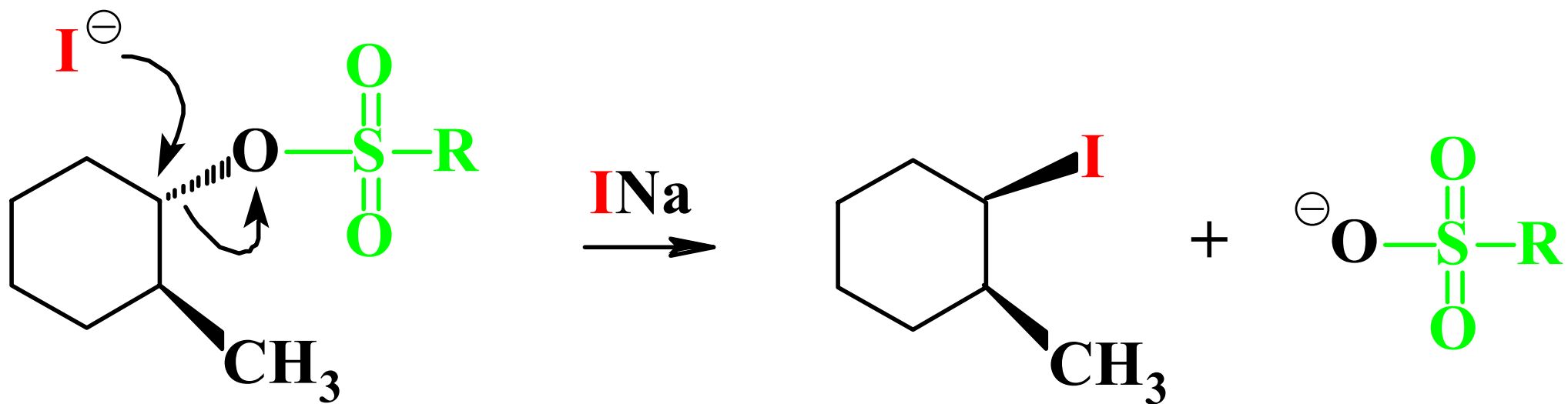
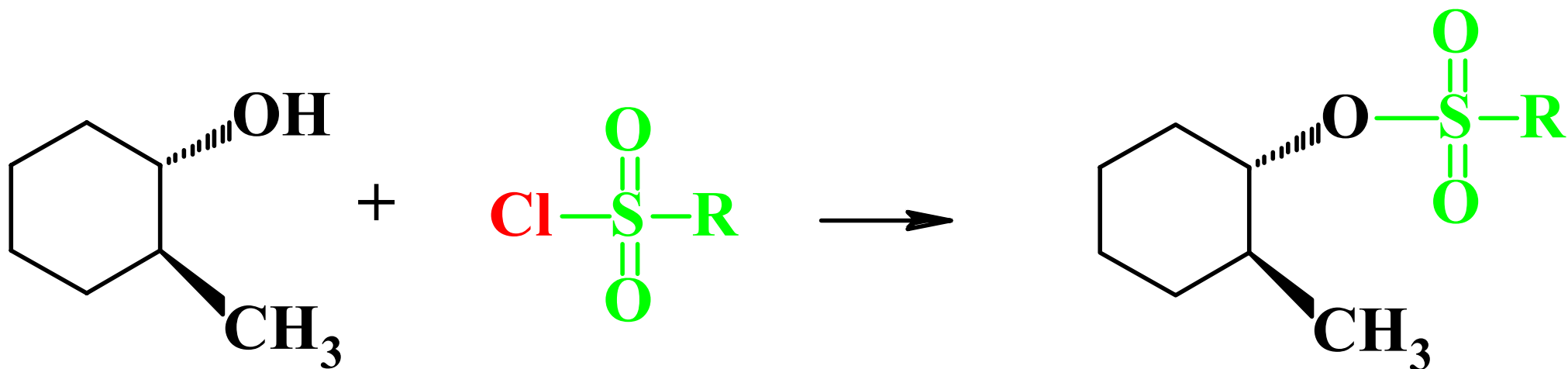
# ESTER SULFONIQUE (SULFONATE)



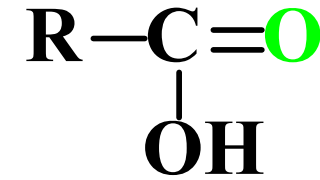
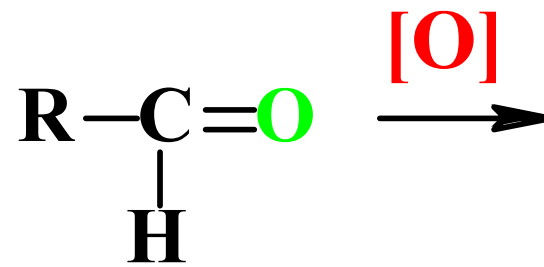
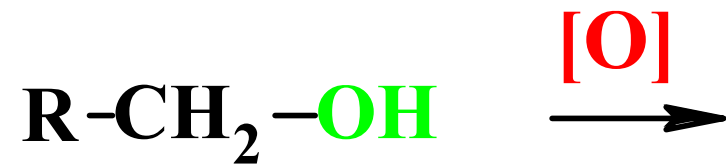
**SUBSTITUTION NUCLÉOPHILE  
ÉLIMINATION**



# RÉACTIVITÉ DES SULFONATES

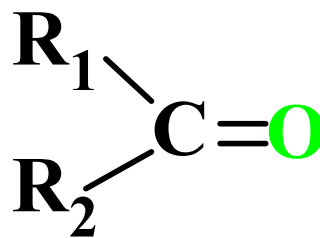
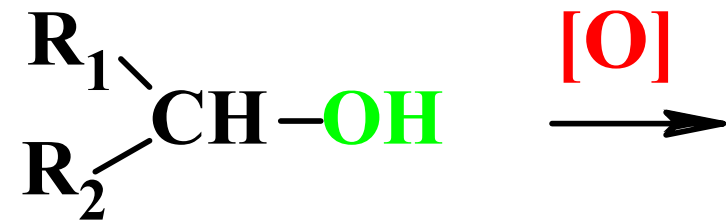


# OXYDATION DES ALCOOLS

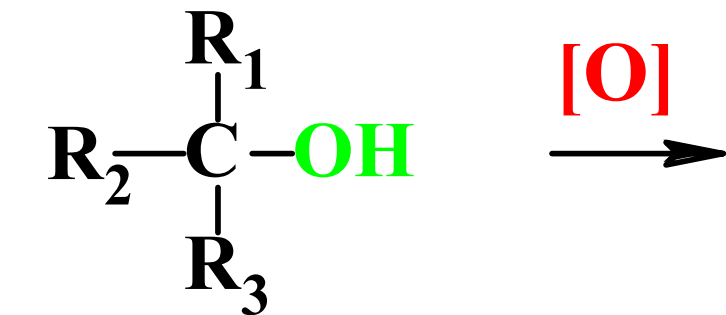


aldéhyde

acide



cétone



rien ou composés de dégradation



# OXYDATION DES ALCOOLS

