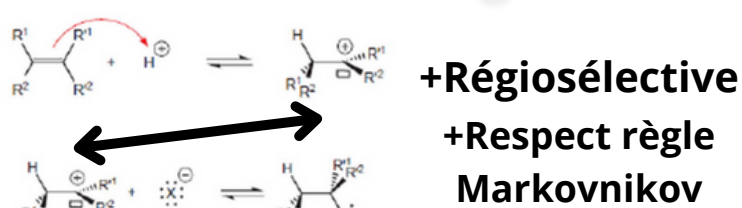


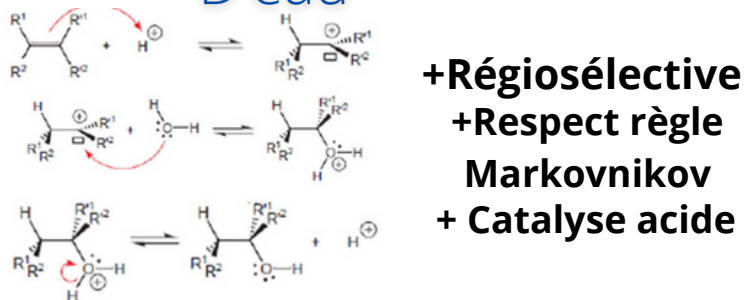
# Les alcènes

## Les additions

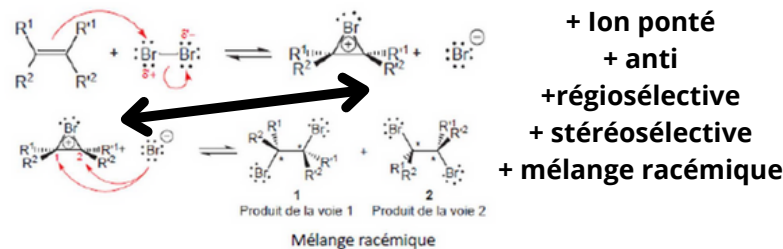
### Addition en présence d'H<sup>+</sup> D'acide halogéné



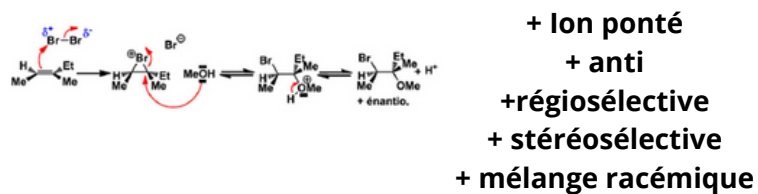
### D'eau



### Addition de di-halogène Seul



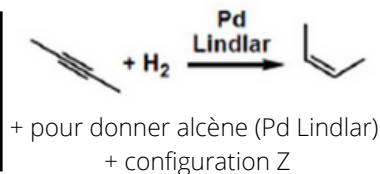
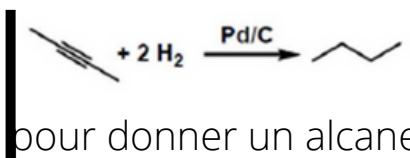
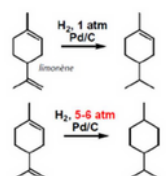
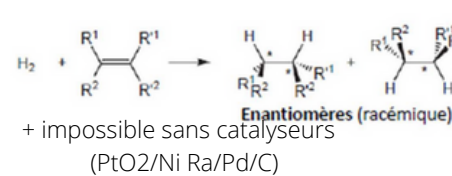
### Avec solvant polaire protique



### Alcènes

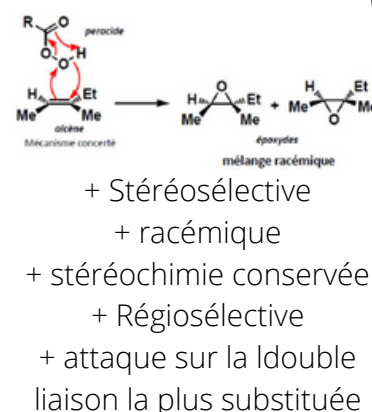
### Hydrogénation

### Alcyne



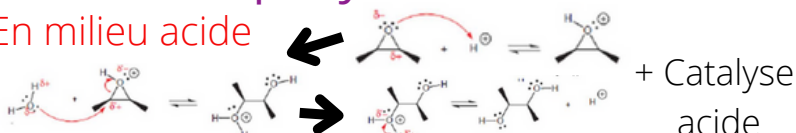
## Les oxydations

### Formation époxyle

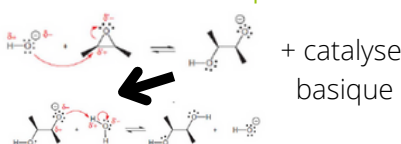


### Ouverture époxyle

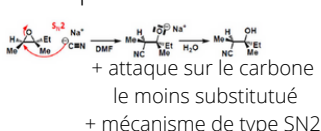
#### En milieu acide



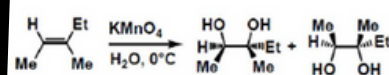
#### En milieu basique



#### Nucléophile fort



### Di hydroxylation



### + Mélange racémique

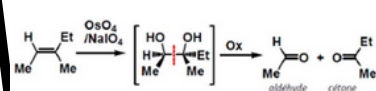
### + syn addition

### + KMnO4 à froid ou OsO4

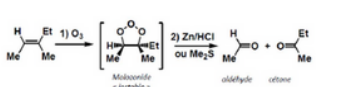
### Coupure oxydante

#### Douce (jusqu'à aldéhyde)

#### -OsO4 ou NaIO4

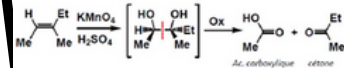


#### -O3 avec réducteur



#### Forte (jusqu'à acide carboxylique)

#### -KMnO4 avec acide



#### -O3 seul