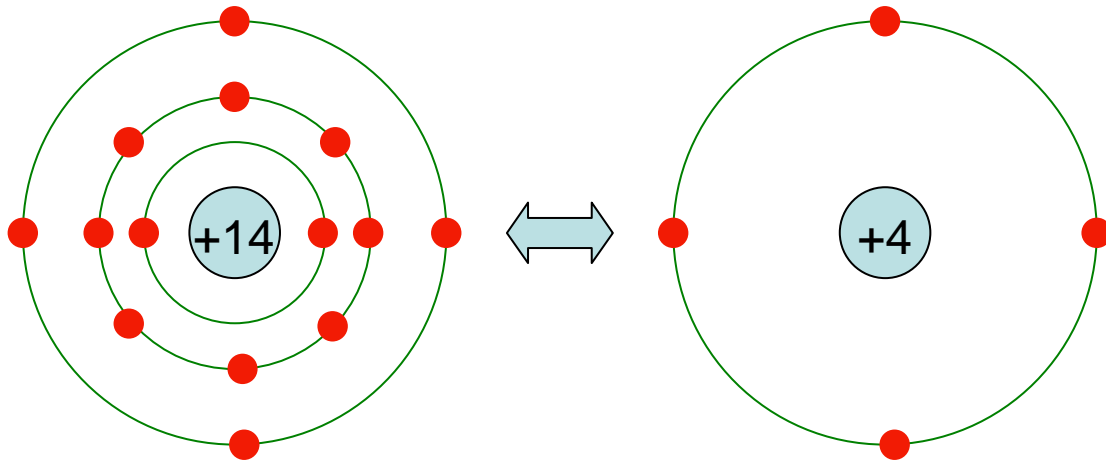
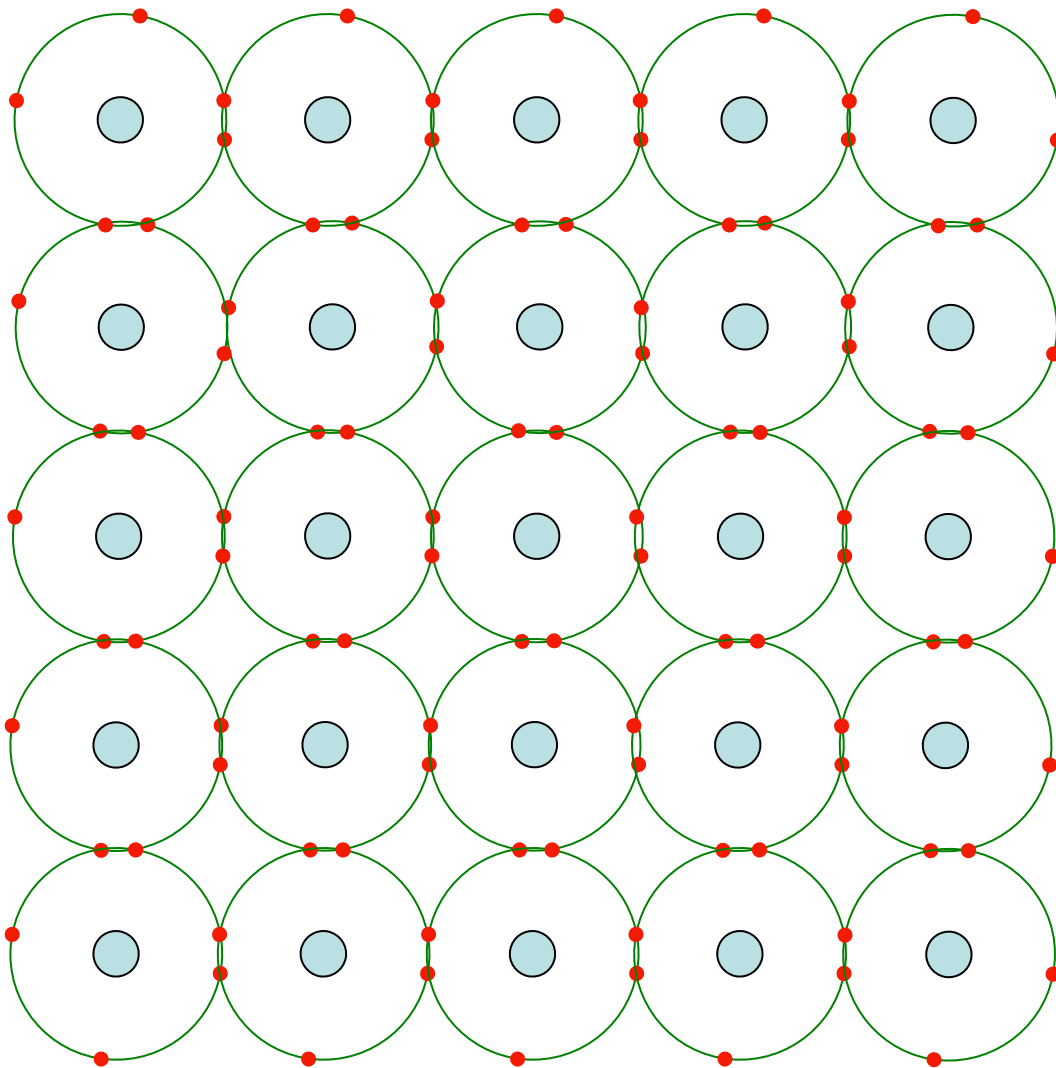


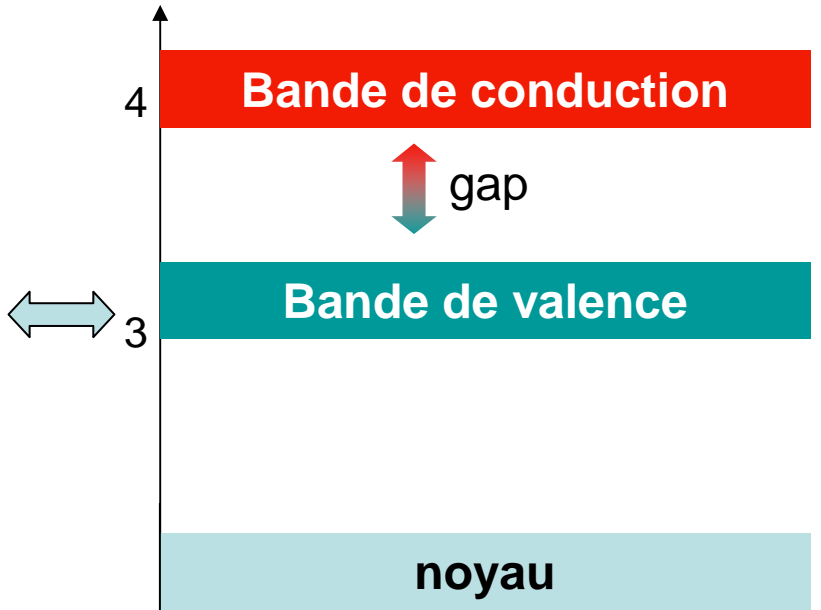
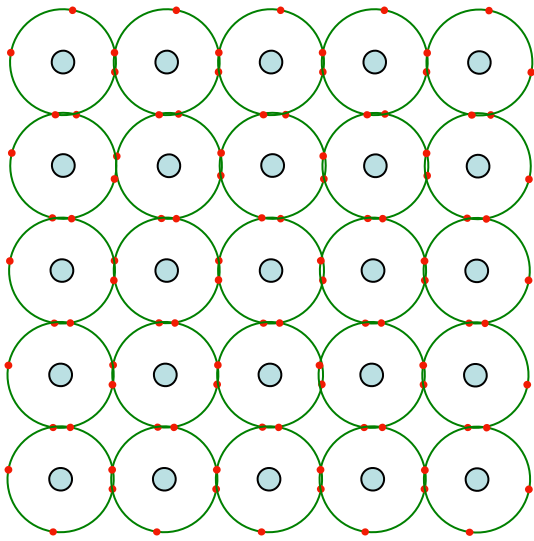
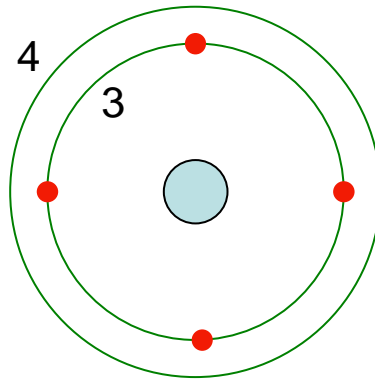
Atome de silicium:  $^{28}_{14}\text{Si}$



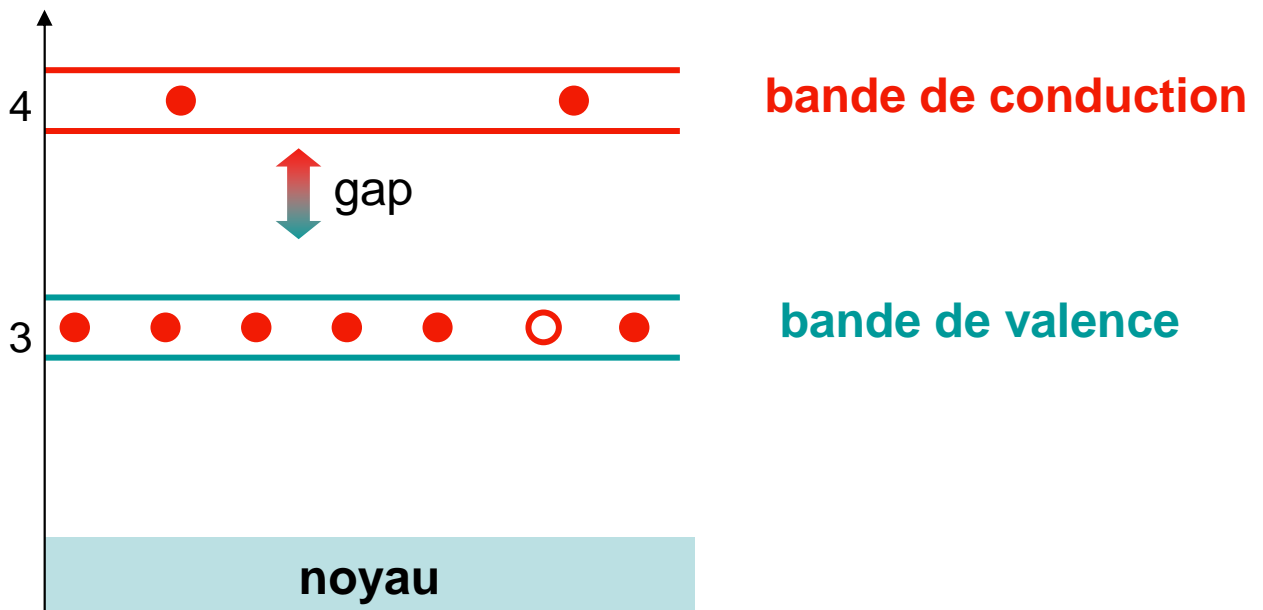
Cristal de silicium



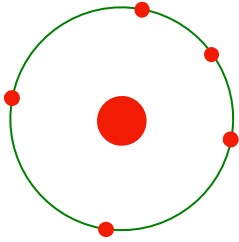
**atome**



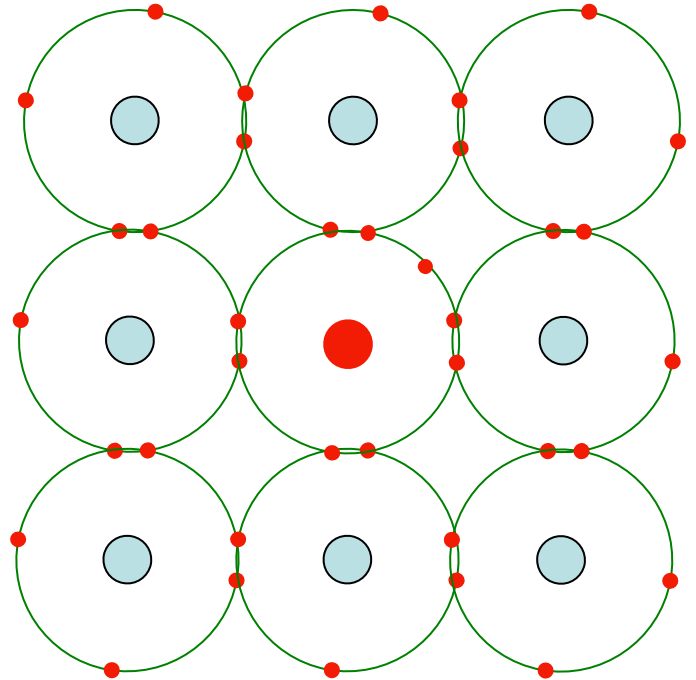
**crystal**



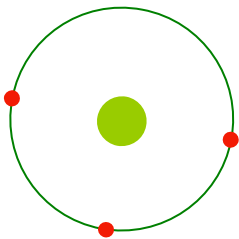
# Semi-conducteur dopé



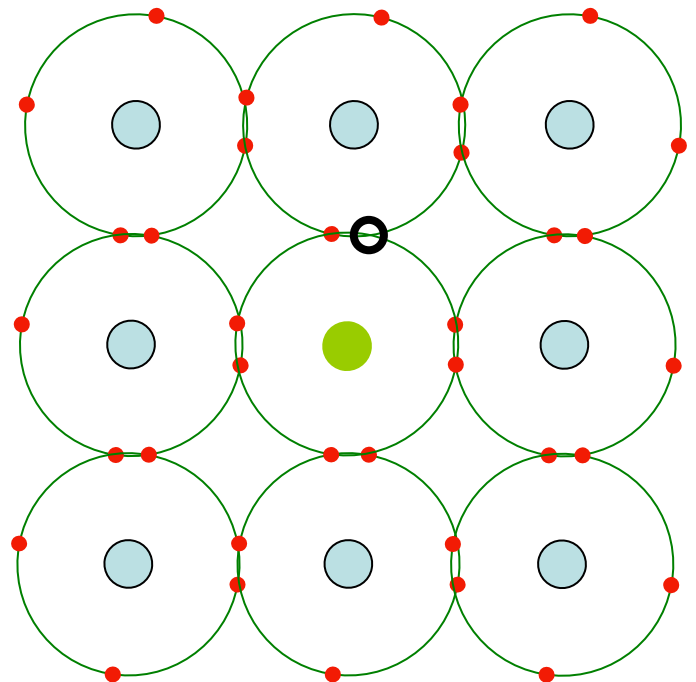
**atome pentavalent  
(Arsenic)**



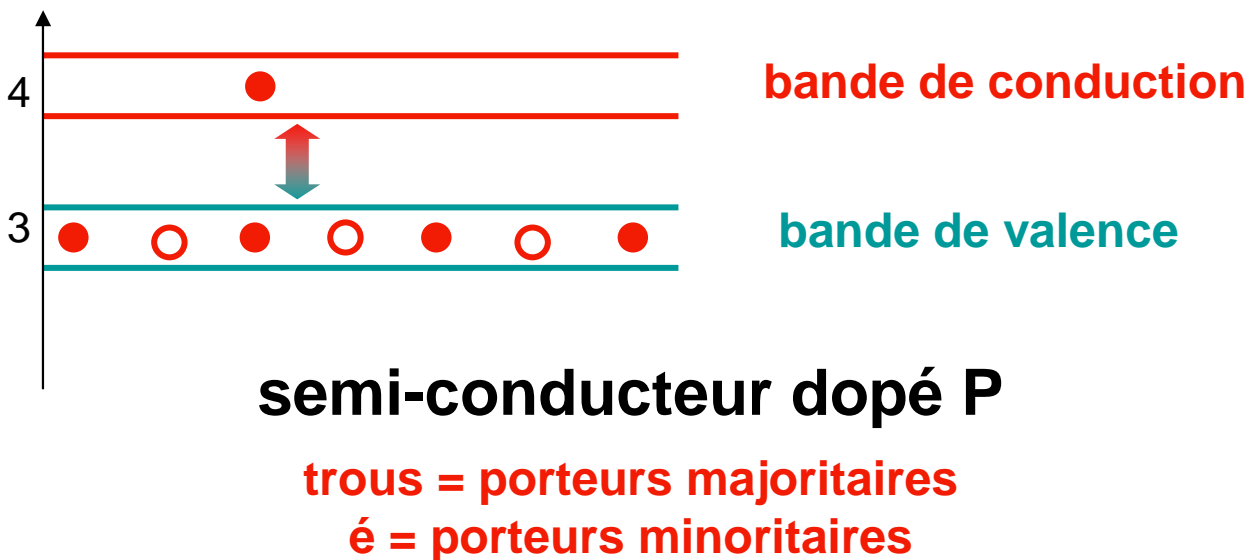
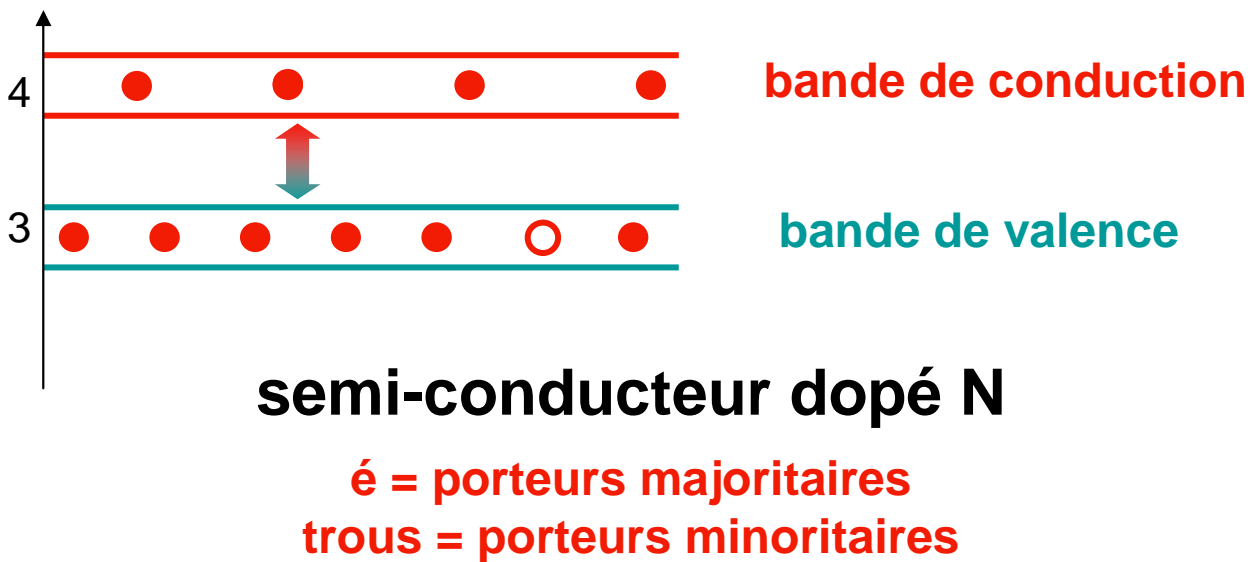
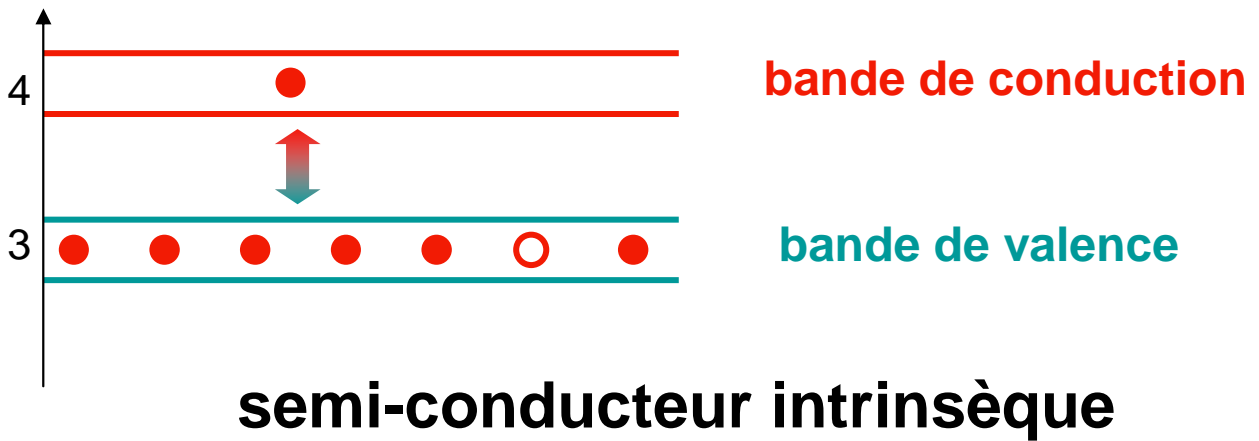
**Cristal N**



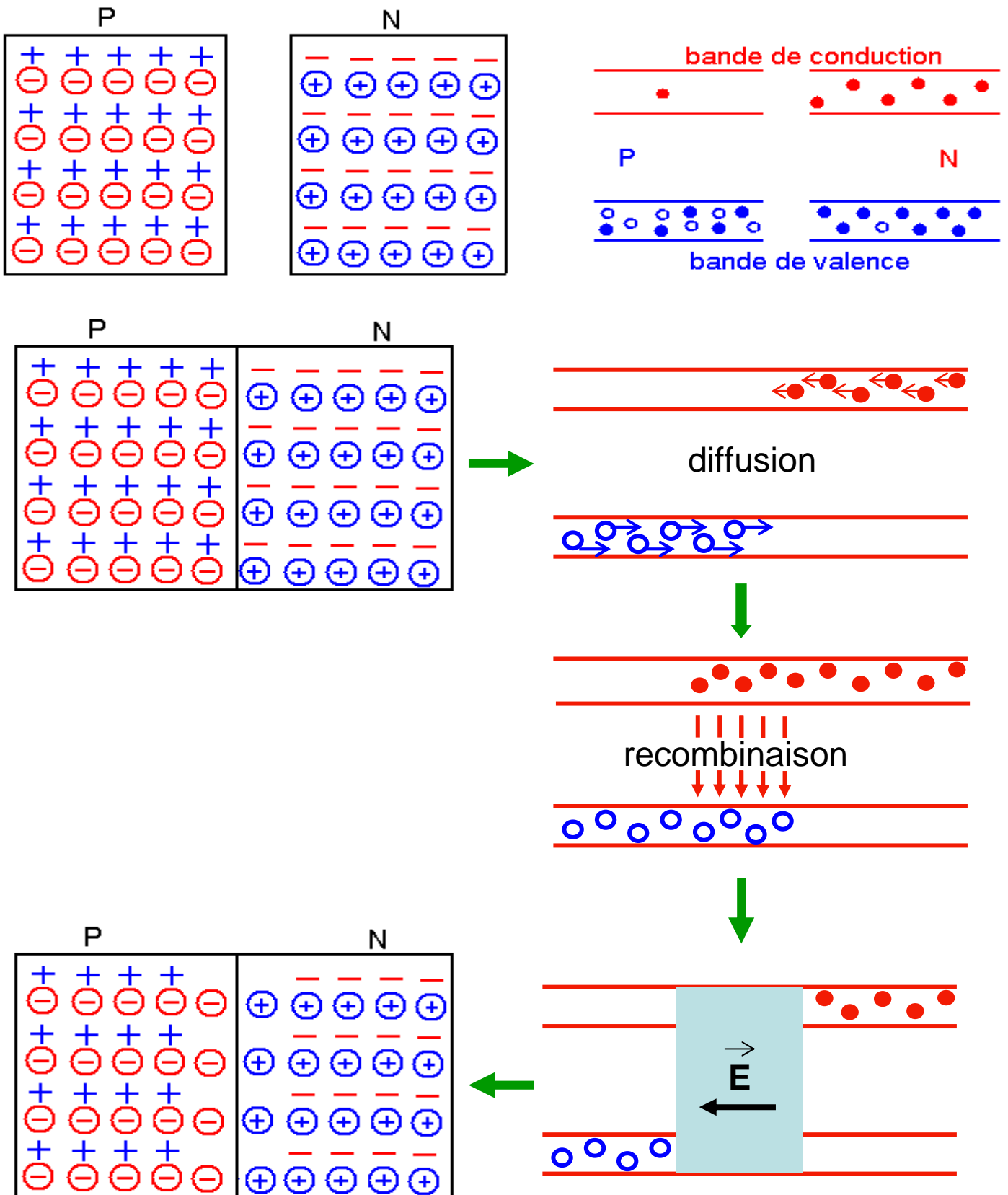
**atome tétravalent  
(Gallium)**



**Cristal P**

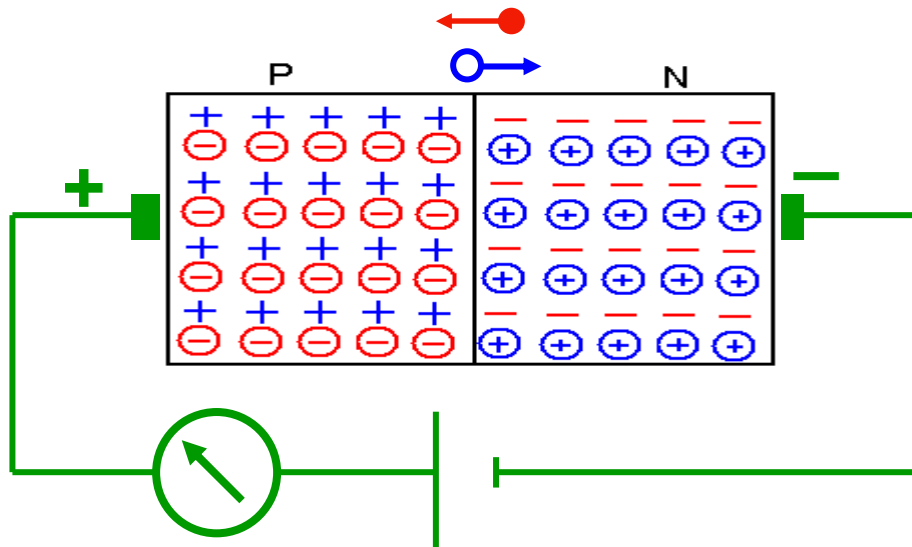


# Jonction PN



# Polarisation de la diode

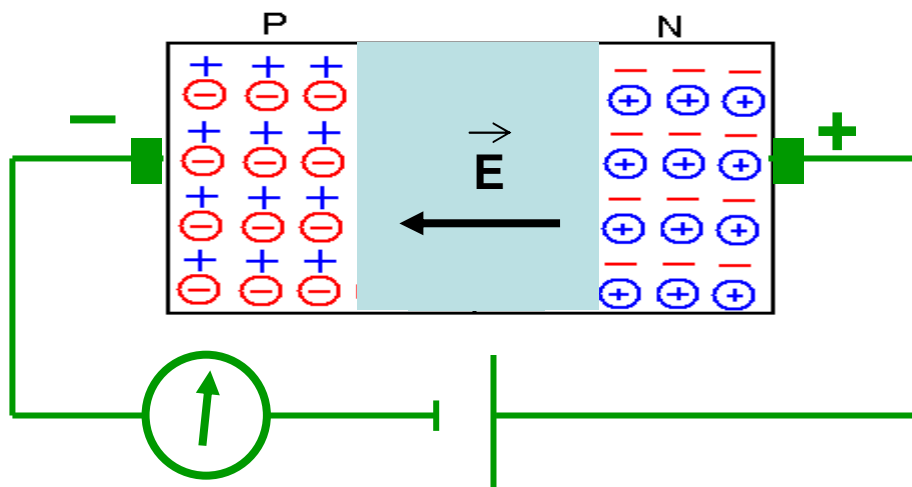
Diode polarisée dans le sens « passant » ou « direct »



**courant des porteurs majoritaires dans la diode (mA, A)**

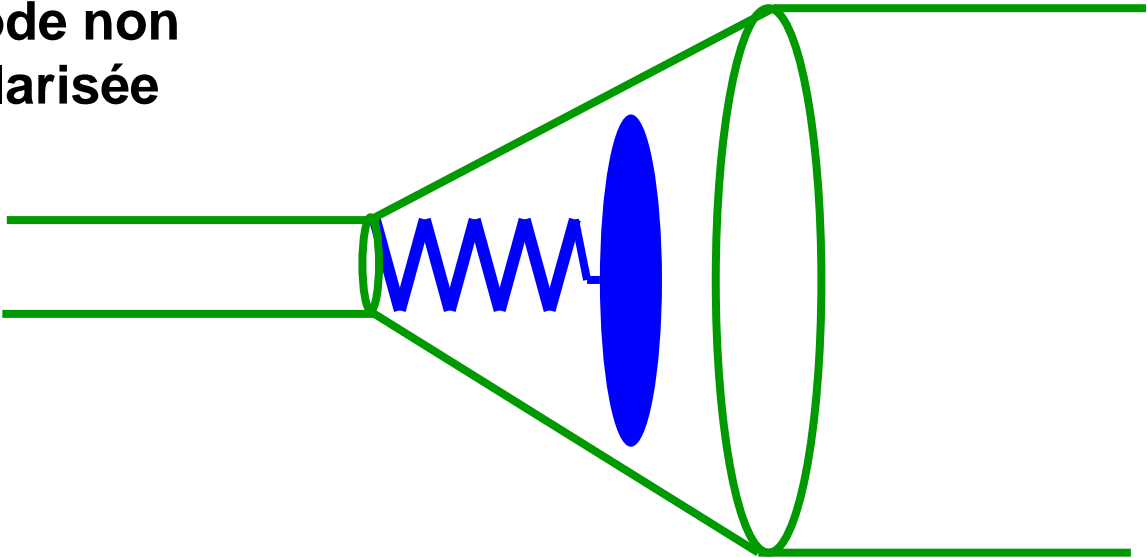
---

Diode polarisée dans le sens « bloquant » ou « inverse »

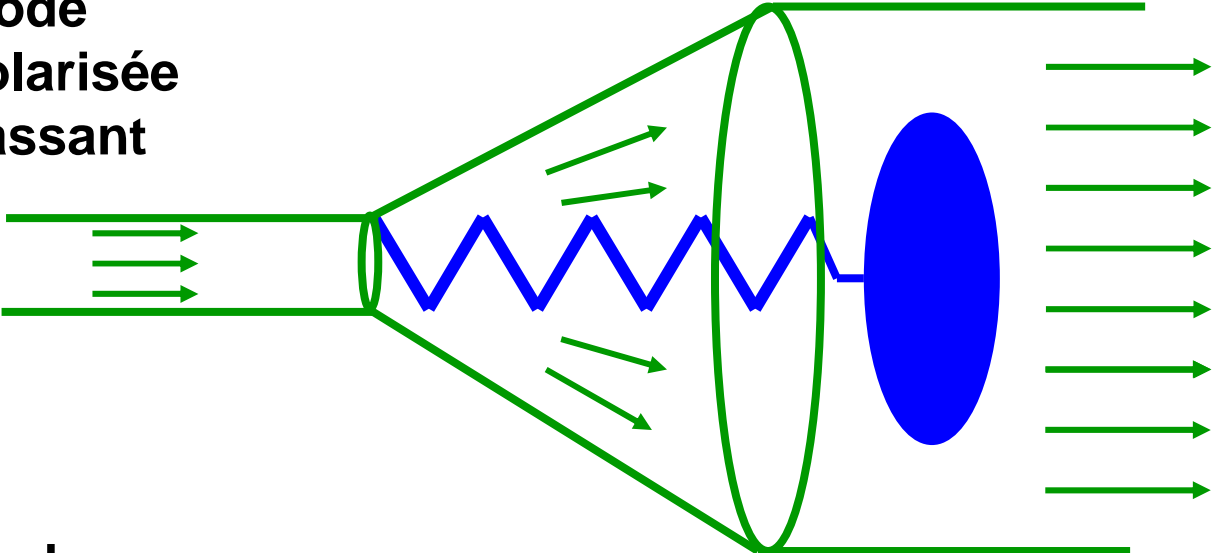


**courant des porteurs minoritaires dans la diode ( $\mu\text{A}$ , nA)**

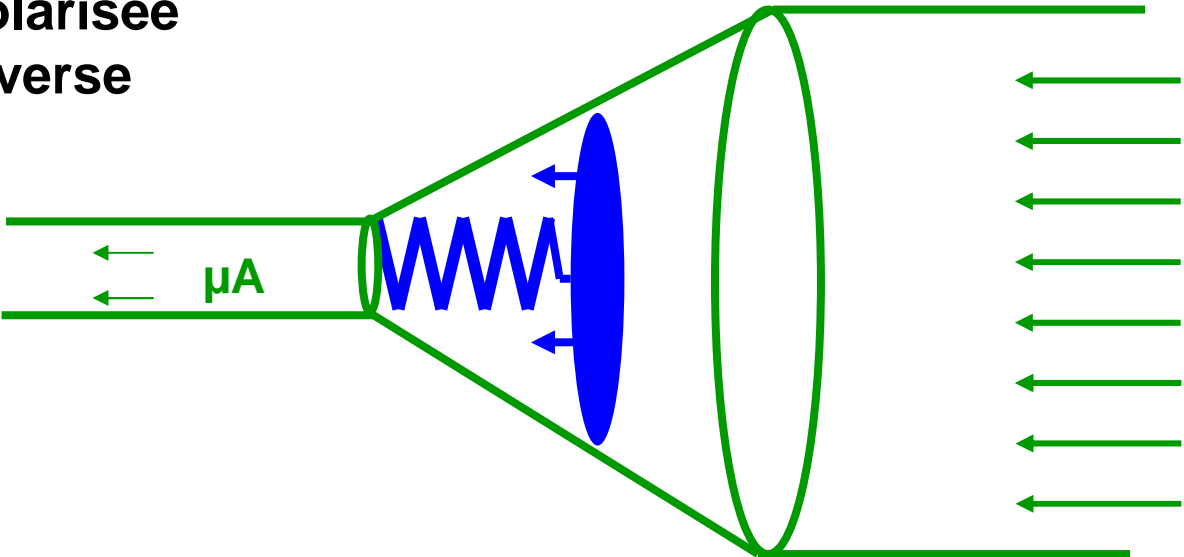
**diode non polarisée**



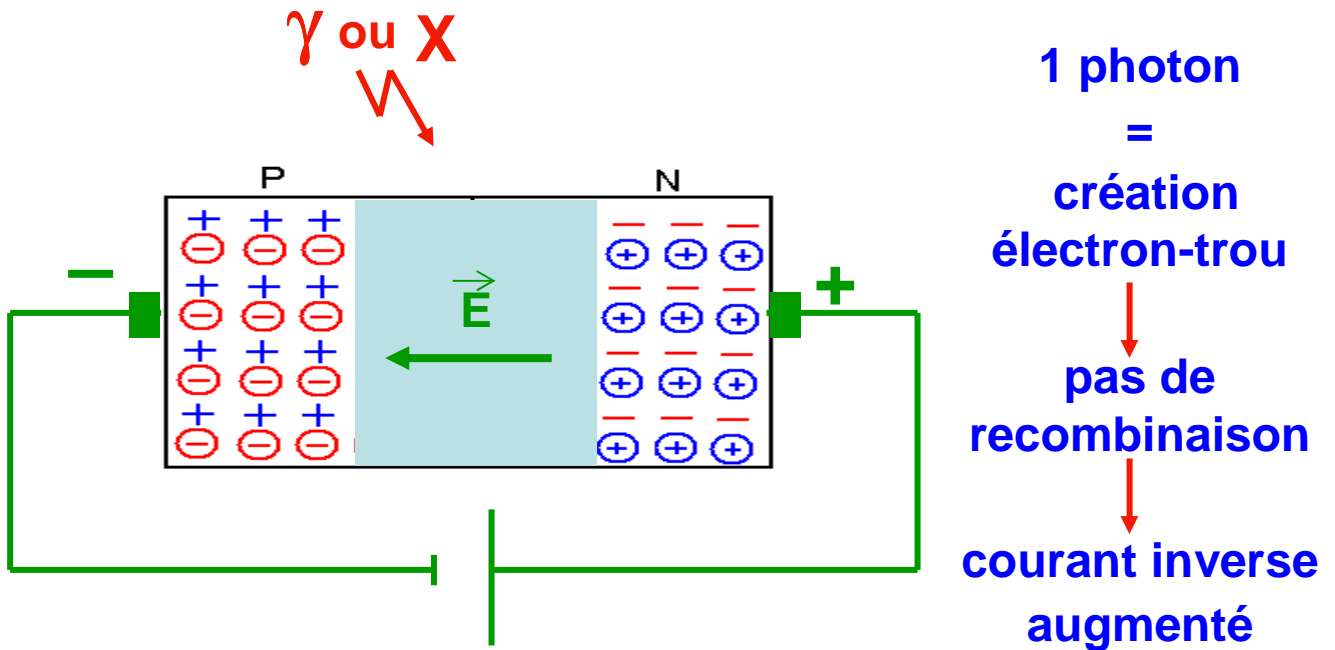
**diode polarisée passant**



**diode polarisée inverse**



# Photodiode - principe



**Diode polarisée dans le sens inverse afin d'augmenter la zone de charges d'espace et donc l'efficacité du processus**

