

# Sensortyper

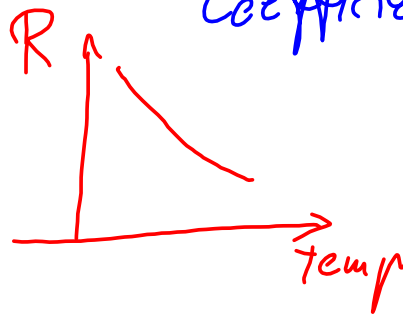
## Metstand

↳ forandrer verdi avhengig av hva sensor måler

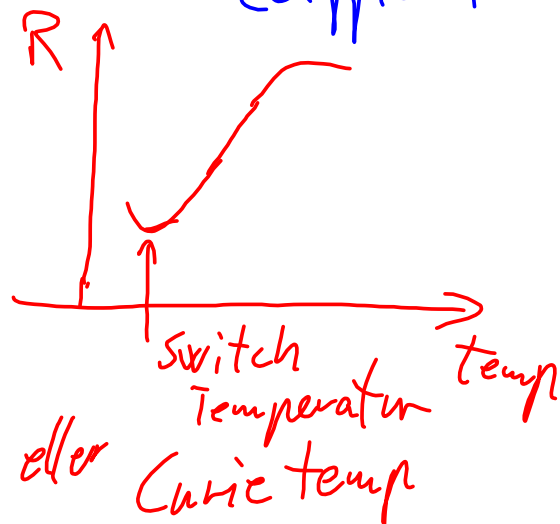
↳ Temperatur

- Pt 1000, Pt 500, Pt 100

- NTC : Negativ Temperatur Coefficient thermistor



- PTC : Positiv Temperatur Coefficient thermistor



Lys

· LDR: Light Dependent Resistor

→ Mindre motstand med mer lys

Halvleder

· Semikonduktor (halvledere)

Kapasitet sensor

Kapasitansen forandrer seg

Induktiv sensor

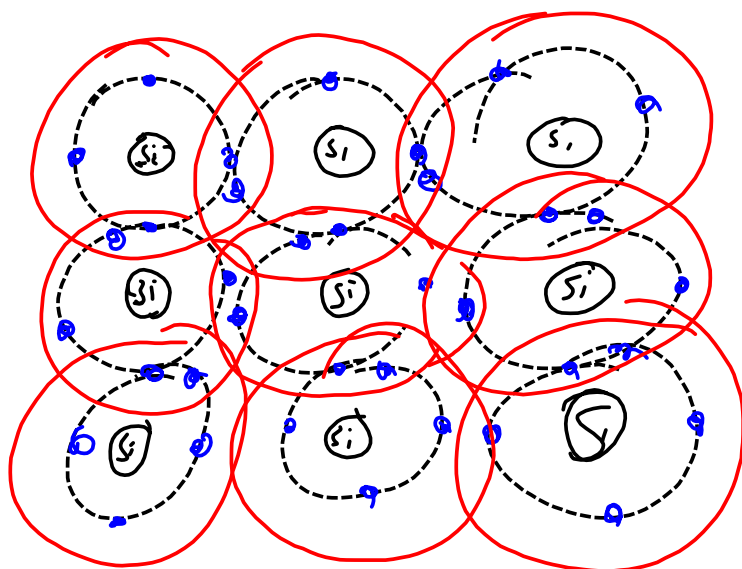
Magnet feltet påvirkes

# Halvledere

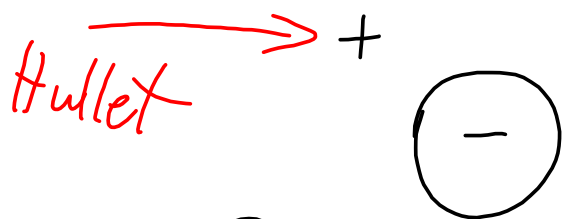
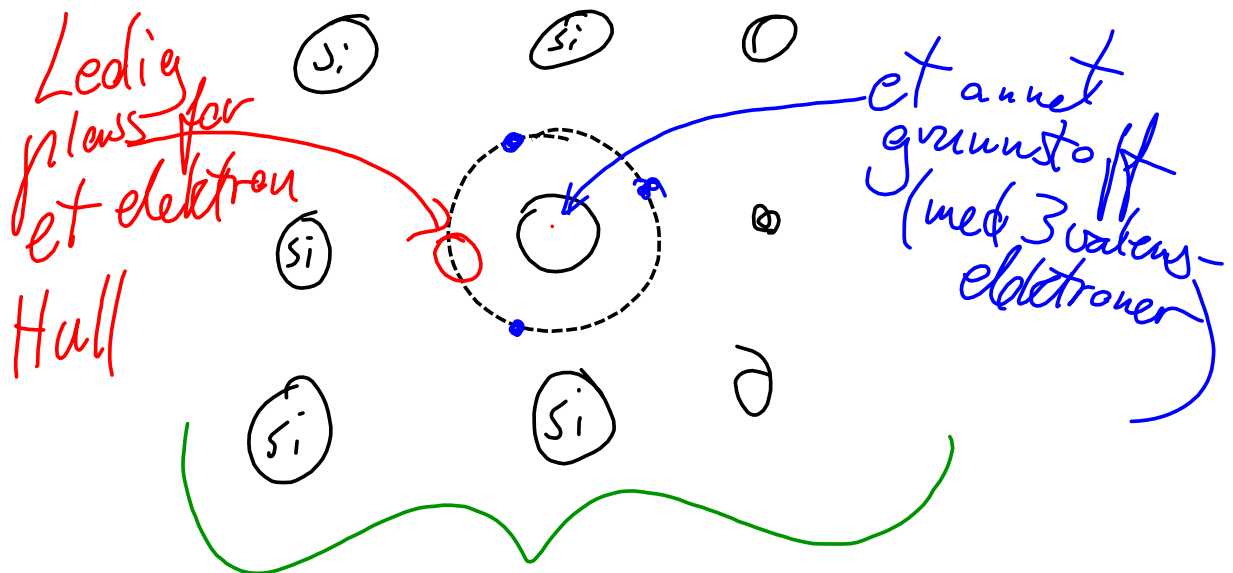
Grunnstoff : Si (eller Ge)

↑  
Hovedgruppe 4  
Dvs 4 elektroner i  
ytterste skall

Oktettregelen : 8 elektroner i ytterste  
skall er et fullt skall

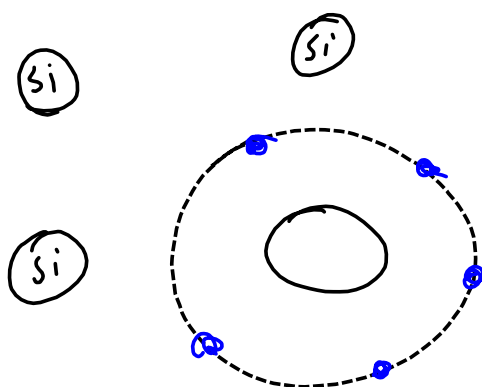


Si, med 4 valenselektroner  
 dopes med et grunnstoff  
 som har 3 valenselektroner



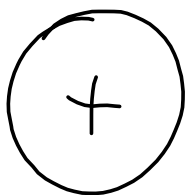
P-type halvleder

Hvis Si dopes med et grunnstoff  
med 5 valenselektroner



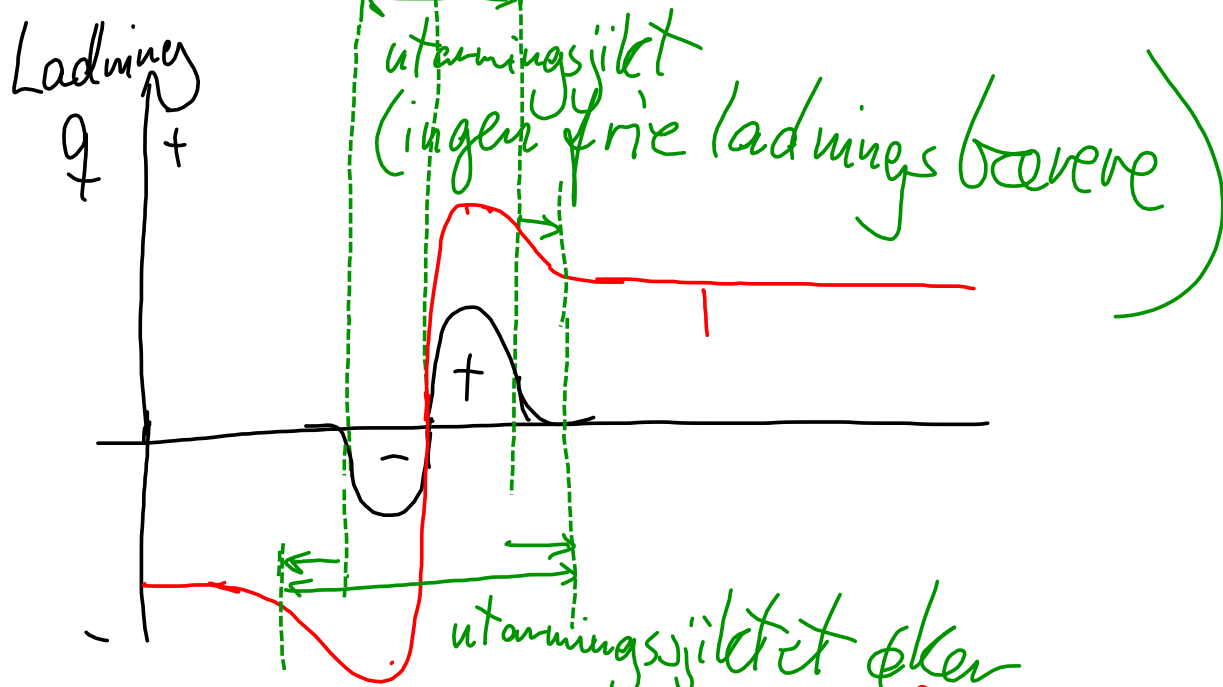
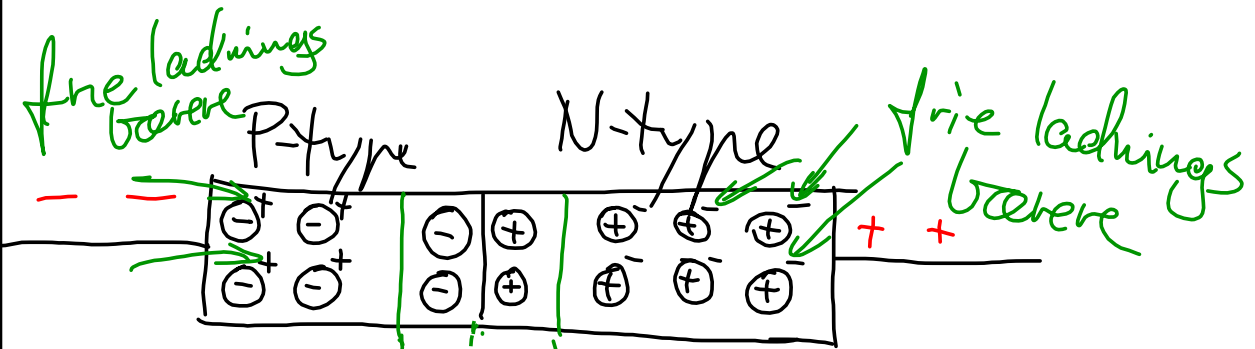
Da blir det et elektron "for mye"  
for klettregelen

elektron  
"for mye"



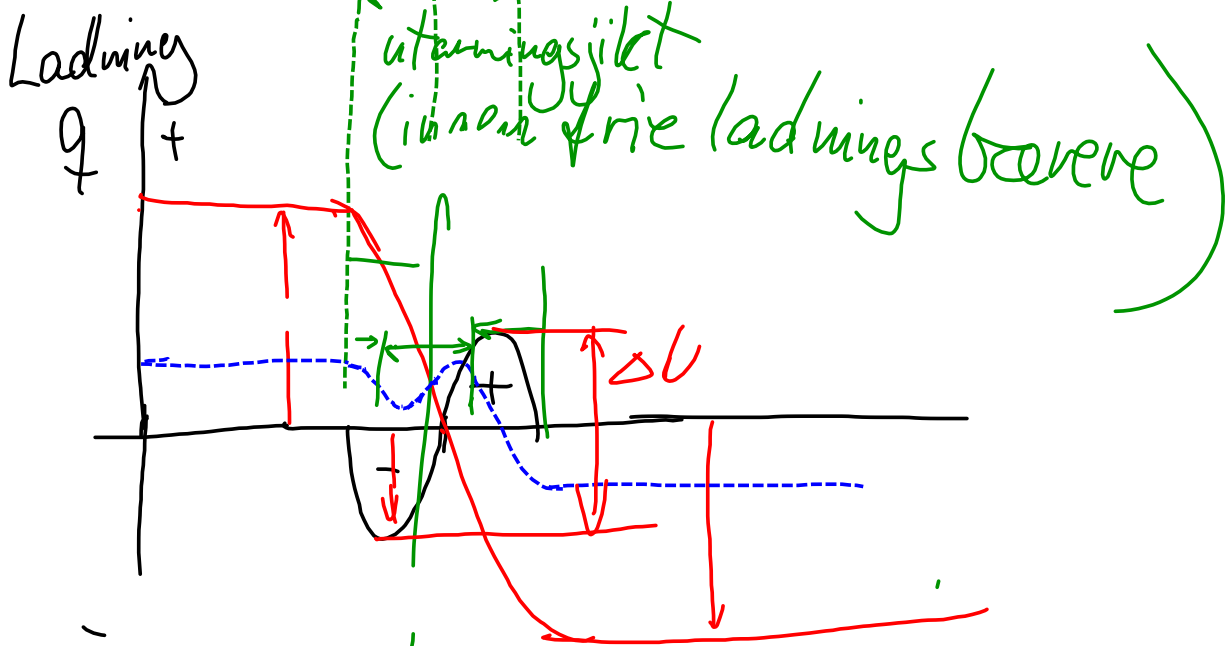
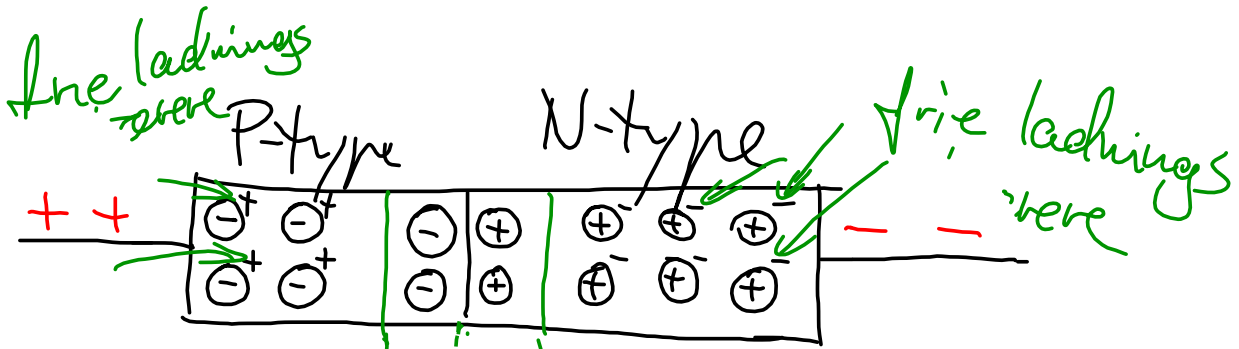
N-type halvleder

# PN-overgang



ingen strøm kan gå i  
PN-overgangen når det  
kobles - ladning på P og  
+ ladning på N

# PN-overgang



Utarmingsjiktet er (tilnærmet) null.

Nå vil PN-overgangen lede strøm

