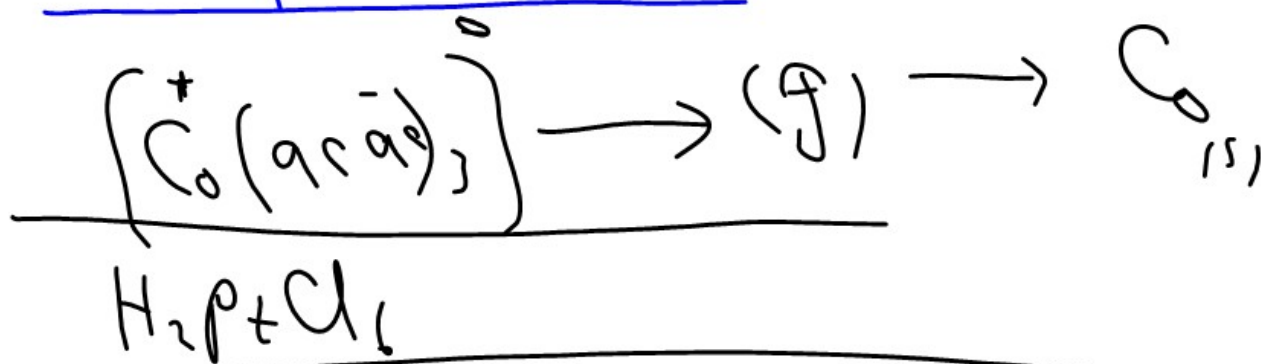
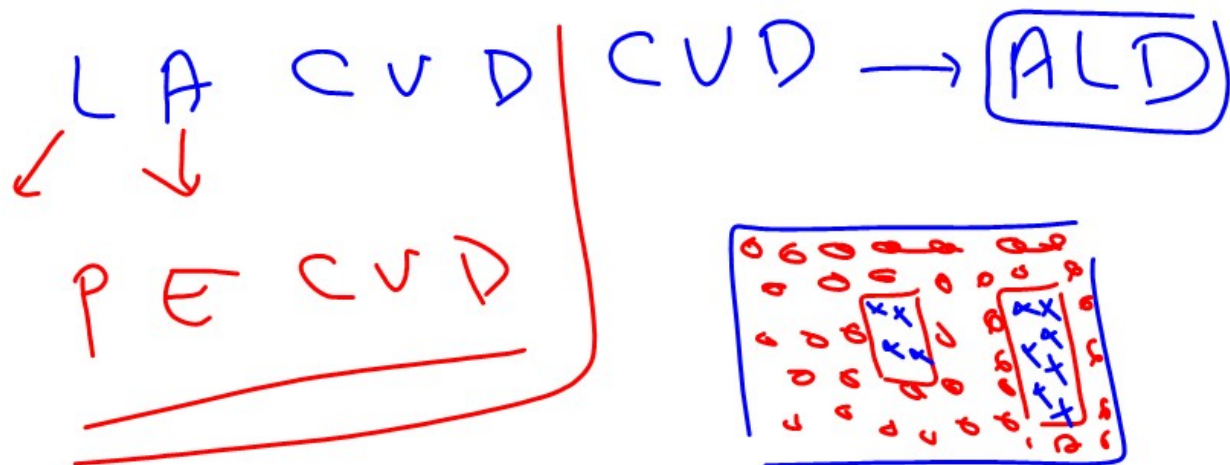
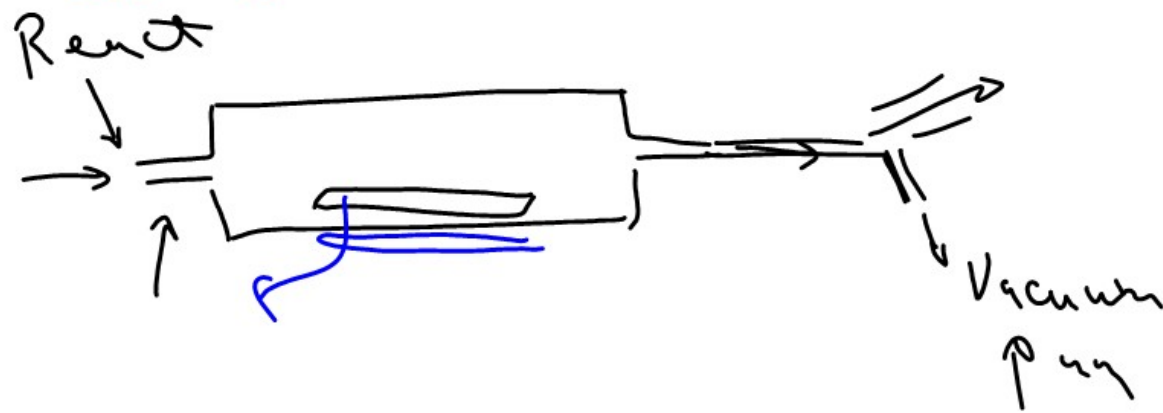


Hot Walled CVD Reactor

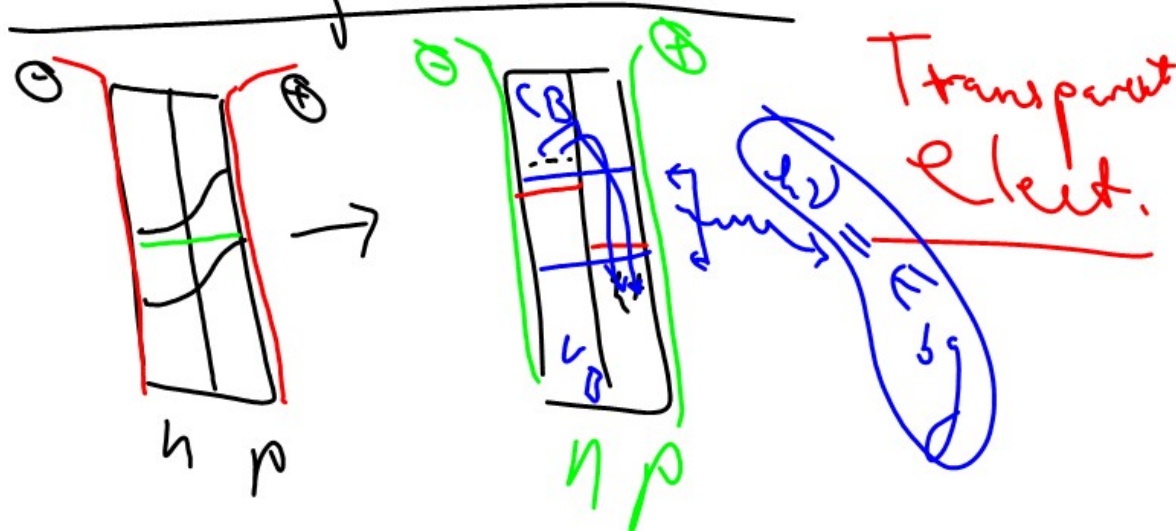
Cold Walled CVD React.



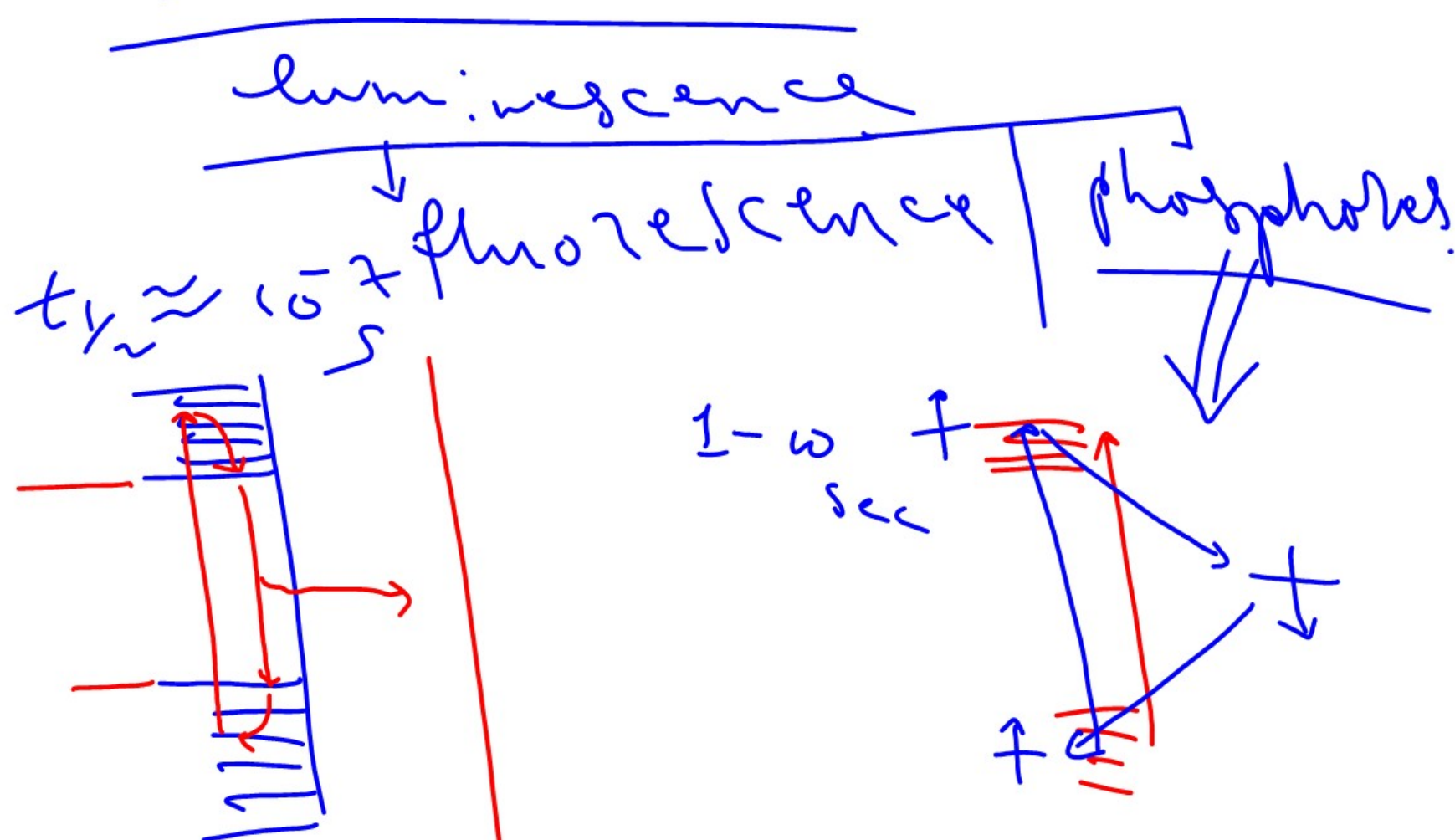
Light Emitting Dev. (LED)

PV $h\nu \rightarrow$ electricity

LED electricity $\rightarrow h\nu$



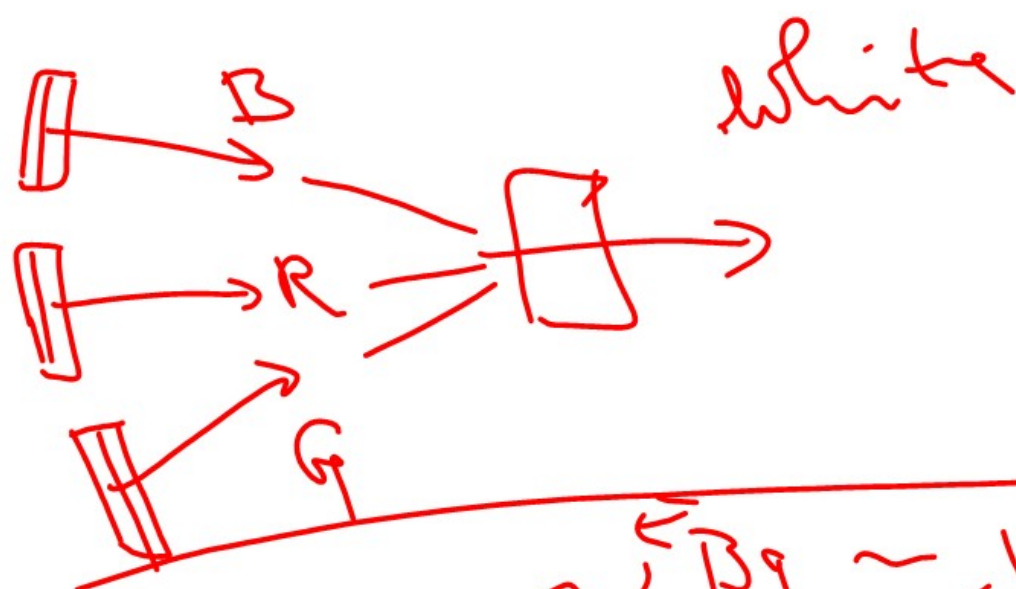
$$\frac{1240}{\lambda \text{ nm}} \equiv \lambda \text{ nm}$$



Electroluminescence

Chemiluminescence

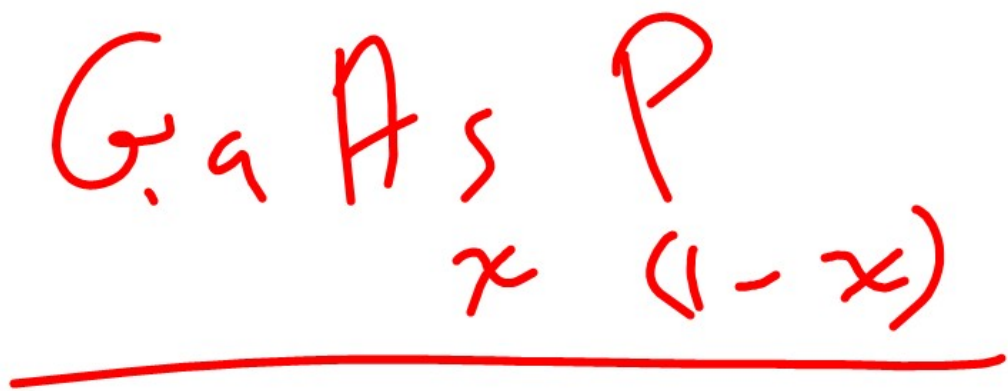
Bioluminescence



GaAs

$$\lambda_g \approx 1.75 \text{ eV}$$

$$\frac{1240}{1.75} = 900 \text{ nm}$$



$$\text{GaP} \rightarrow 2.3 \text{ eV}$$

$$\text{GaAs} \quad 1.35 \text{ eV}$$

IV
P
As