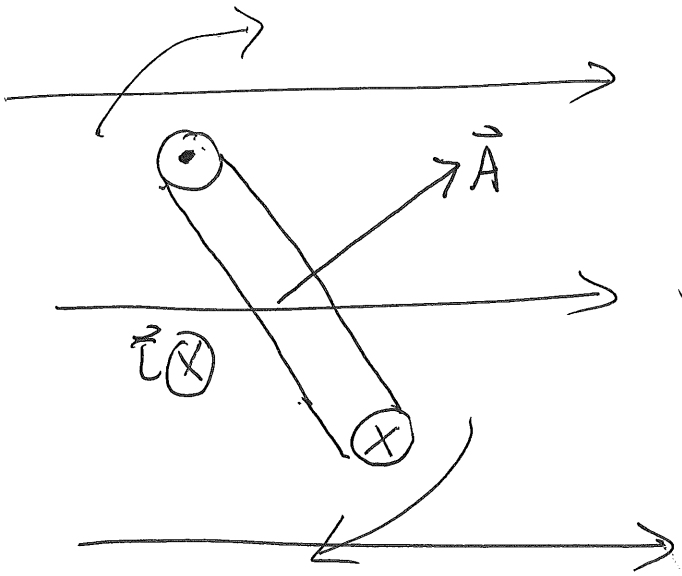
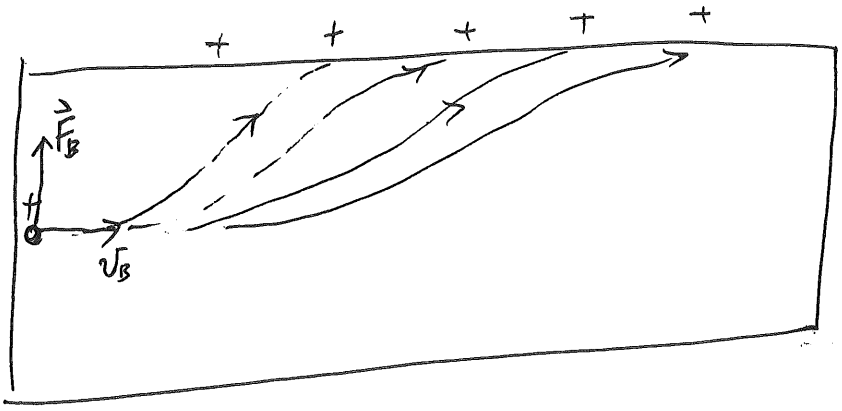


$$\vec{\tau} = I\vec{A} \times \vec{B}.$$

Magnetic moment $\vec{\mu}$.

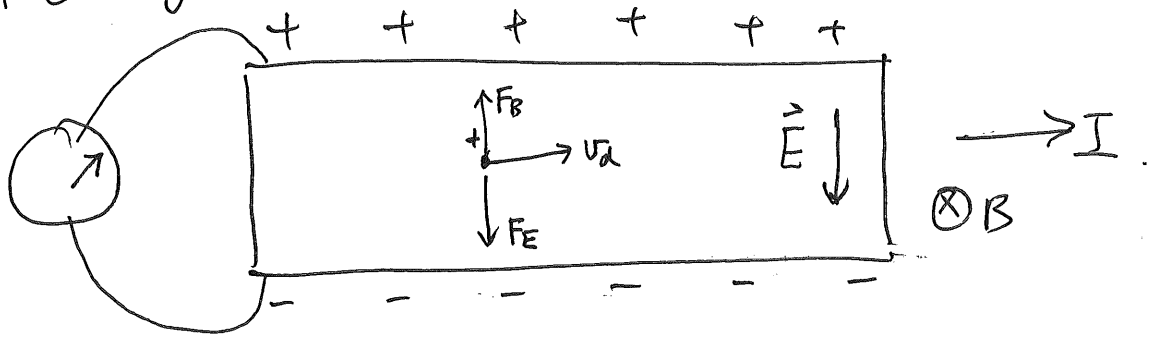
$$\therefore |\vec{\tau}| = I \cdot A \cdot B \sin\theta. \quad \&$$

Direction: ⊗

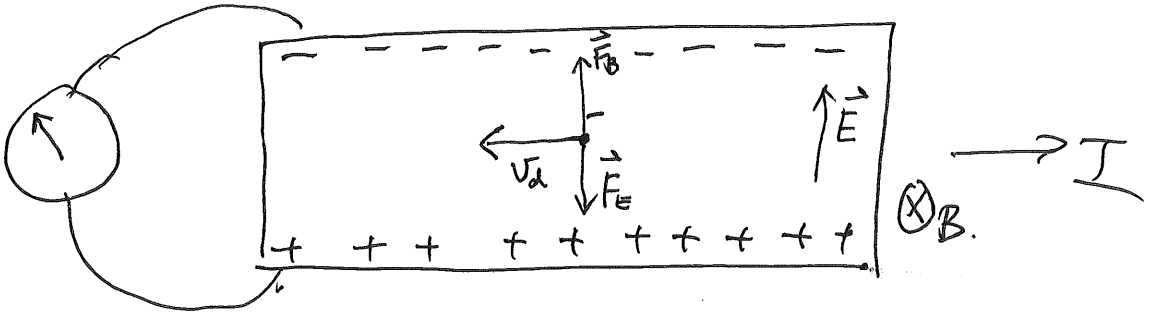


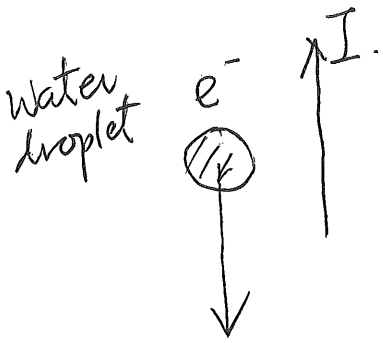
⊗ .

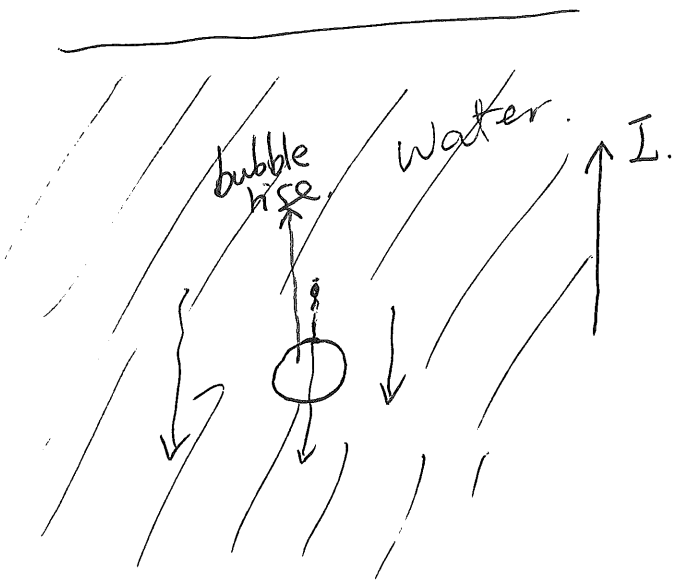
+ charges:



− charges:







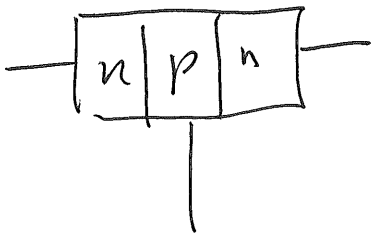
Two types of ~~ca~~ semiconductors:

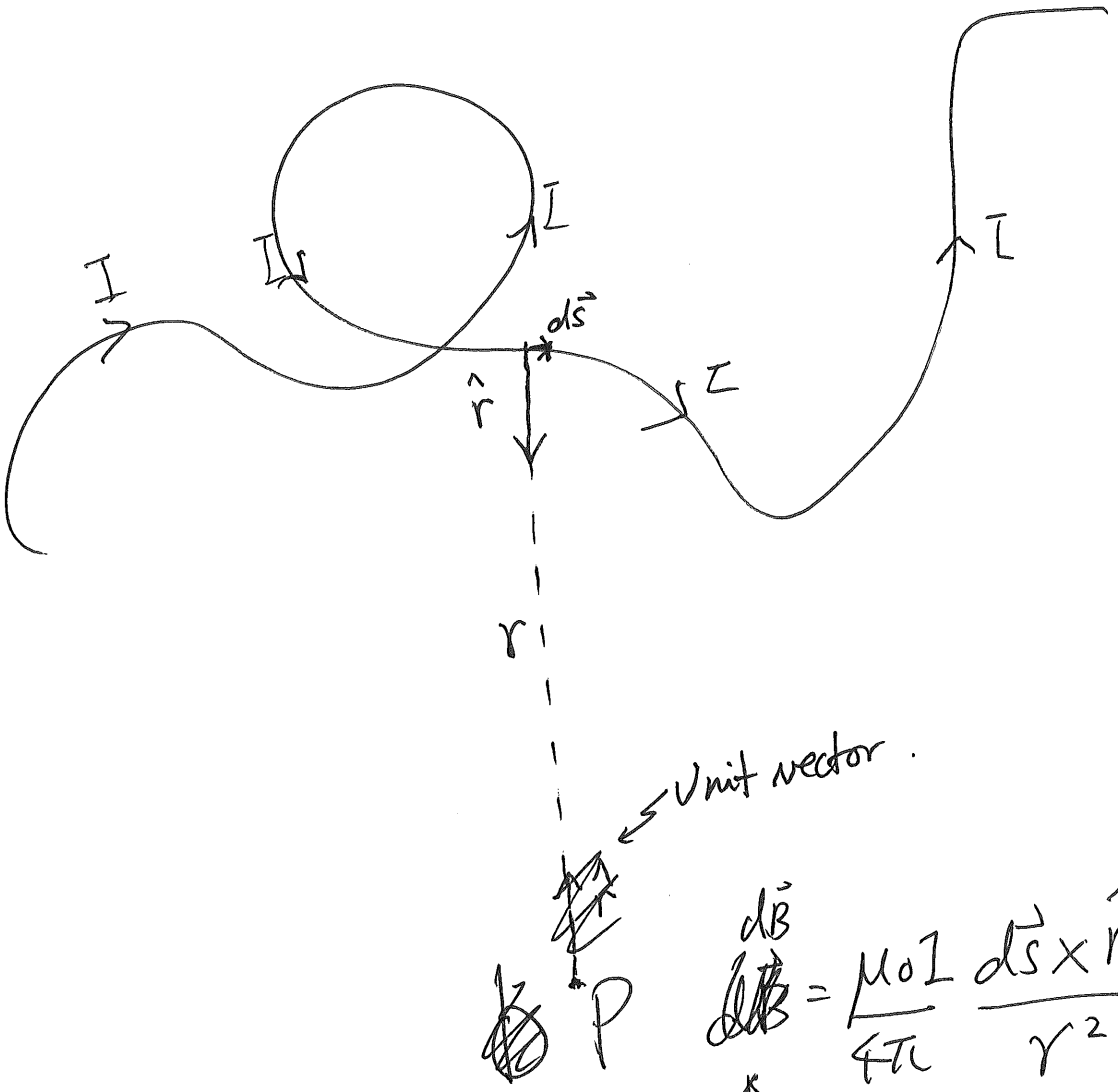
p-type: positive carrier

n-type: negative carrier.

Diode.

Transistor.





$$d\vec{B} = \frac{\mu_0 I}{4\pi} \frac{d\vec{s} \times \hat{r}}{r^2}$$

$d\vec{B}$ at point P.

$$\frac{\vec{r}}{r} = \hat{r}$$