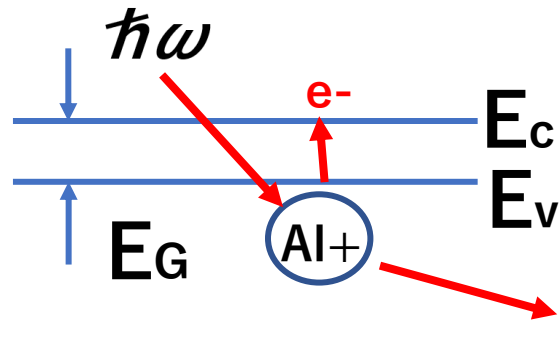
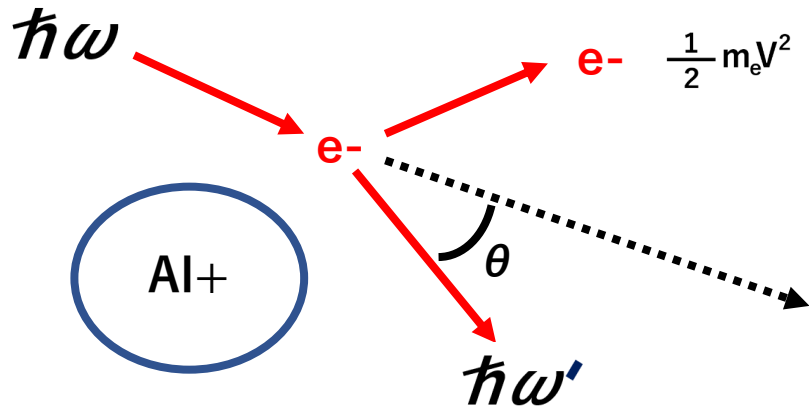


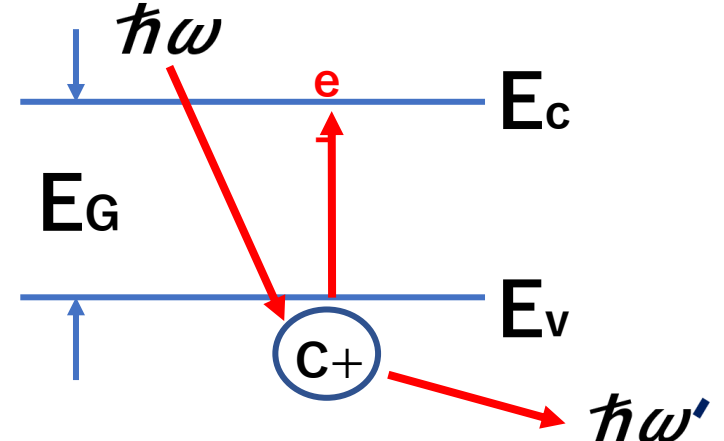
Difference between Metal and Isolator



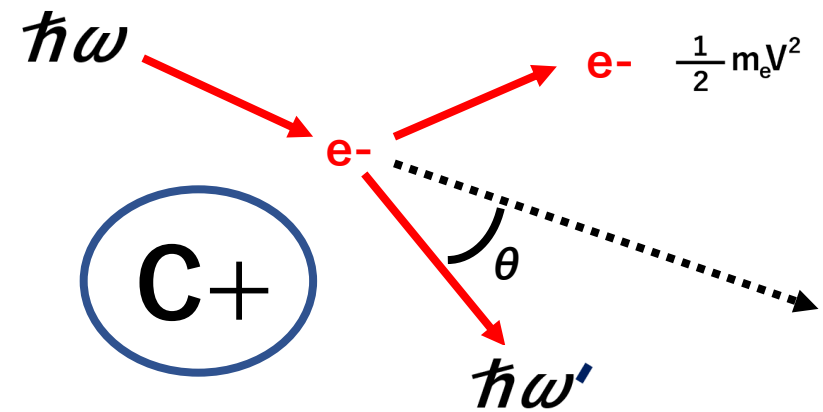
$$\hbar\omega = \hbar\omega' + \frac{1}{2}m_eV^2 + E_G$$



Al Metal



$$\hbar\omega = \hbar\omega' + \frac{1}{2}m_eV^2 + E_G$$



Carbon Diamond