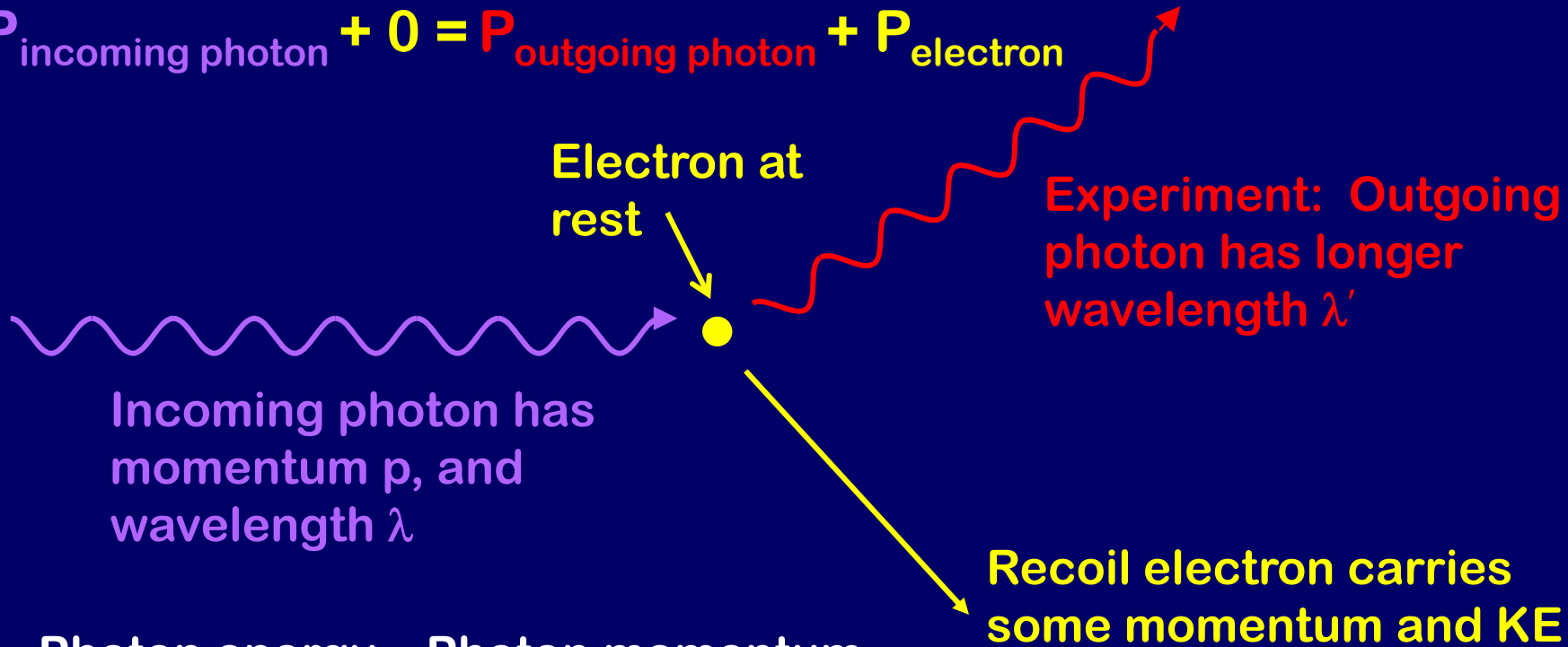


Compton Scattering

This experiment really shows photon momentum!

$$P_{\text{incoming photon}} + 0 = P_{\text{outgoing photon}} + P_{\text{electron}}$$



Photon energy

$$E = hf = \frac{hc}{\lambda}$$

Photon momentum

$$p = \frac{h}{\lambda}$$

$$\Rightarrow E = pc$$