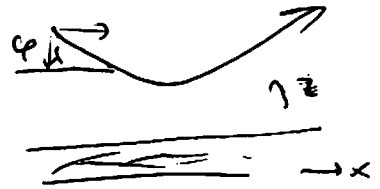


$$m\gamma \ddot{z} = -e E_z = e \frac{dV}{dz}$$

$$\frac{m\gamma}{e} \frac{d\dot{z}}{dt} dz = \frac{dV}{dz} dz$$

$$\frac{m\gamma}{e} \frac{\dot{z}^2}{2} = V + \frac{C}{\frac{m\gamma}{e} \frac{v_{\perp\infty}^2}{2}}$$



$$\frac{dz}{dt} = \sqrt{\frac{2e}{m\gamma} V + v_{\perp\infty}^2}$$

$$(V < 0)$$

$$\rightarrow z_{\min}$$

$$\frac{d\Gamma(\omega)}{d\omega}$$

$$\frac{dz}{\sqrt{v_{\perp\infty}^2 + \frac{2e}{m\gamma} V(z)}} = dt$$

$$P(\omega) = \int (v dt) \frac{d\Gamma(\omega)}{d\omega} = 2 \int_{z_{\min}}^{\infty} \frac{v dz}{\sqrt{v_{\perp\infty}^2 + \frac{2e}{m\gamma} V(z)}}$$

$$v dt = dx$$

$$v_{\perp\infty} = v \tan \varphi$$

$$(\approx v \varphi)$$

$$\boxed{E_0 = 100 \text{ KeV}} \quad \boxed{200 \text{ KeV}} \quad \boxed{V_0, \varphi \rightarrow z_{\min}}$$

