**Answer on Question #63935-Physics-Atomic and Nuclear Physics**

The surface of Lithium of work function $\phi$ is illuminated by electromagnetic radiation whose electric field component varies with time as E=a(1+Cosωt)Coskt . The maximum kinetic energy of photo electron liberated from surface is

**Answer**

The frequency of electromagnetic radiation is

$$f = \frac{\omega}{2\pi}.$$

The maximum kinetic energy of photo electron liberated from surface is

$$K = h\frac{\omega}{2\pi} - \phi = \hbar\omega - \phi.$$