

Answer on Question #38241 – Physics – Optics

Will higher frequency eject more electron than lower frequency?

Solution:

Not necessarily. According to Einstein's photoelectric law (the principle that the maximum energy of a photoelectron is $E_m = hf - \Phi$), the energy (not the number) of ejected electrons depends on the frequency of the illuminating photons. A bright source of blue light, for example, may eject more electrons at a lower energy than a dim violet source.