

Act 1

1. It is observed that shining light with wavelength 310 nm on a material will eject electrons, while 312 nm will not. What is the workfunction of the material?

Hint: What is V_{stop} at the maximum wavelength (minimum frequency)?

- a) +2 V b) -2 V c) +2 eV d) -4 eV e) +4 eV

2. If the same light is shined onto a material with $\phi = 2 \text{ eV}$, what stopping voltage will prevent all electrons from making it to the collector?

- a) +2 V b) + 4 V c) +2 eV d) -4 eV e) +4 eV