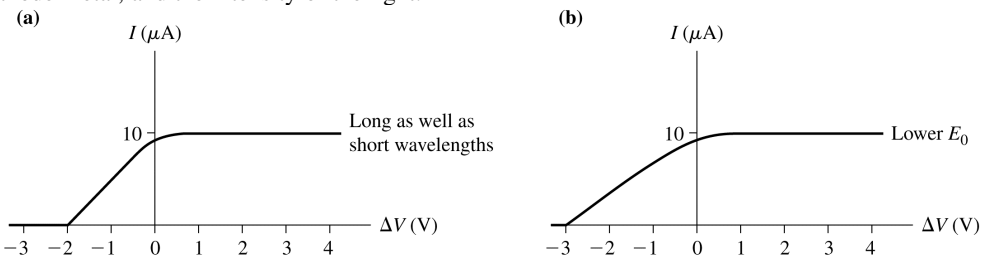
38.4. **Model:** The photoelectric current depends on the potential difference ΔV between the two electrodes, the nature of the cathode metal, and the intensity of the light.

Visualize:



Solve: **(a)** According to classical physics, there is *no* dependence on the light's wavelength. If the light intensity remains constant (same amount of energy falling on the metal cathode), the photocurrent will be unchanged.

(b) The maximum kinetic energy of the electrons emitted from a cathode is $K_{max} = E_{elec} - E_0$. If E_0 is smaller for a different metal, the emitted electrons will have a higher kinetic energy and thus the stopping potential will be larger.