

3. A light source of wavelength, λ , illuminates a metal and ejects photoelectrons with a maximum kinetic energy of 1 eV. A second light source with half the wavelength of the first ejects photoelectrons with a maximum kinetic energy of 4 eV. Calculate the work function of the metal.

4. When cesium metal is illuminated with light of wavelength 300 nm, the photoelectrons emitted have a maximum kinetic energy of 2.23 eV. Find (a) the work function of cesium and (b) the stopping potential if the incident light has a wavelength of 400 nm.