

# The Photoelectric Effect



The apparatus below consists of two metal plates inside an evacuated glass tube.

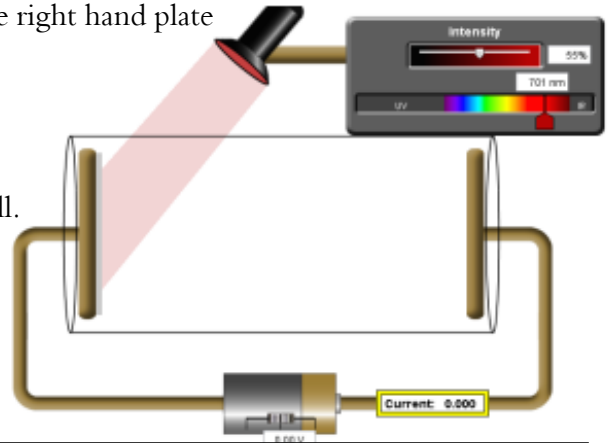
The plates are connected to an electric cell. The left hand plate can be changed to a different metal.

The left hand metal plate is made negative (cathode) and the right hand plate is made positive (anode)

A lamp can be shone onto the metal plate.

The lamps wavelength and frequency can be changed.

The lamp's irradiance onto the metal can be changed as well.



Set the metal at the cathode to be zinc.  
Set the intensity (irradiance) at the half way setting.

Vary the wavelength/frequency of the light shining on the metal.  
**Observations:**

Increase the irradiance of light shining on the metal plate for different wavelengths.  
**Observations**