Photoelectric Effect Stopping Potential

Key words: photoelectric effect, stopping potential, electron





Equipment List:

- 1. Optical rail
- 2. Mercury lamp
- 3. Optical diaphragm
- 4. Lens
- 5. Box of filters
- 6. Photocell
- 7. Multimeter

How to assemble and operate:

- Connect the components as shown
- Turn on the mercury lamp and measure the stopping voltage for a given filter
- Repeat this for different filters and observe a higher stopping voltage for bluer filters

Description/Theory:

This demonstration illustrates the wavelength dependency of the stopping potential, and can also be used to show it is independent of the light source intensity.

Comments/Notes: