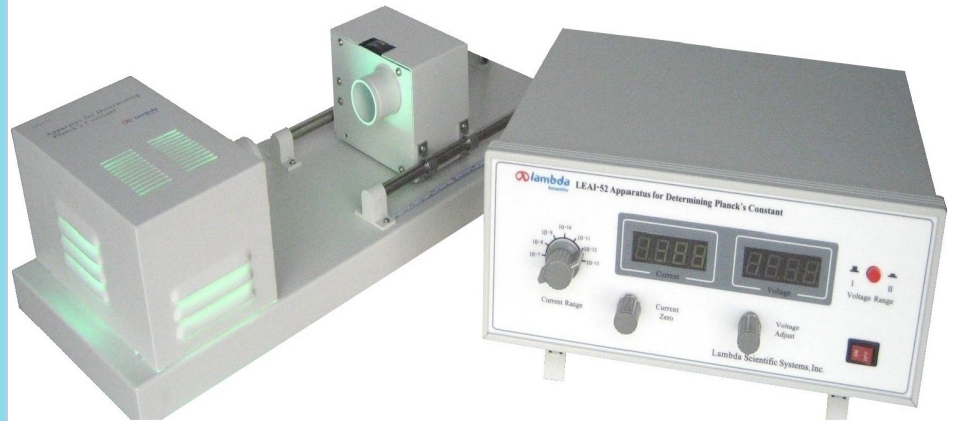
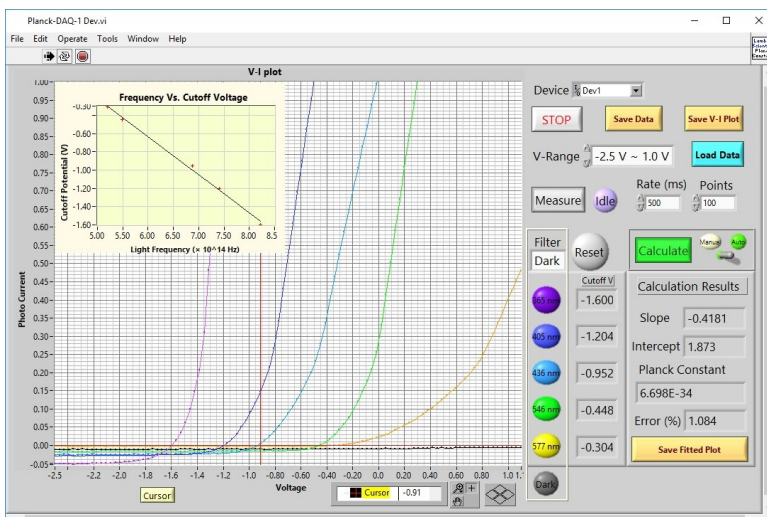


LEAI-52 Apparatus for Determining Planck's Constant - Advanced Model

- *More accurate measurement results by using micro current meter*
- *Integrated structure and easy to operate*
- *No crosstalk between spectral lines*
- *No background current*
- *Built-in data acquisition card with software for PC use via USB port*



This LEAI-52 experimental apparatus for determining Planck's constant is used to demonstrate the photoelectric effect, measure the characteristic curve of a photoelectric tube, verify the existence of "red limit" frequency, and calculate Planck's constant according to the Einstein's equation of photoelectric effect. By employing a precision photocell, Planck's constant can be determined with a high accuracy of 3%, either by processing data manually recorded from the apparatus; or by using a built-in data acquisition card to automatically acquire data to a PC via USB port and process the acquired data with software. It is an ideal teaching apparatus for physics laboratories at colleges and universities.



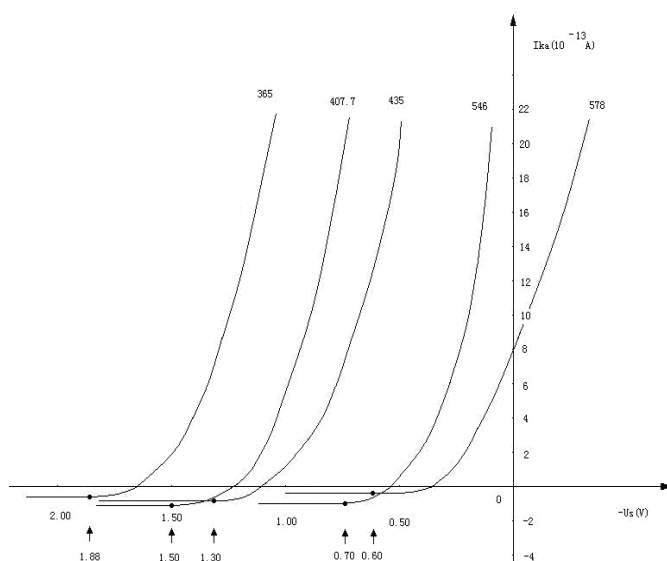
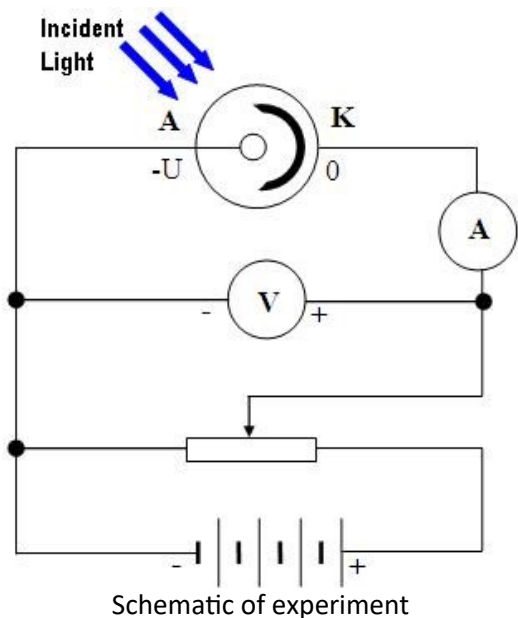
User interface panel of software

Specifications

Wavelength of filters	365 nm, 405 nm, 436 nm, 546 nm, 577 nm
Light source	50 W Mercury lamp
Sensor	Wavelength range: 340 ~ 700 nm
	Cathode sensitivity: $\geq 1 \mu\text{A}$ ($-2 \text{ V} \leq U_{KA} \leq 0 \text{ V}$)
	Anode dark current: $\leq 5 \times 10^{-12} \text{ A}$ ($-2 \text{ V} \leq U_{KA} \leq 0 \text{ V}$)
Current measurement range	$10^{-7} \sim 10^{-13} \text{ A}$, 3-1/2 digit display
Phototube power supply	Voltages: I: $-2 \sim +2 \text{ V}$; II: $-2 \sim +20 \text{ V}$, 3-1/2 digits, stability $\leq 0.1 \%$
Zero drift	$< \pm 0.2\%$ of full scale (for scale 10^{-13} A) within 30 min. after warm-up
Measurement method	Zero current method and compensation method
Measurement error	3%

Part List

Main Unit	1
Electric Control Unit	1
Cable and Wire	3
Power Cord	1
Instruction Manual	1



$V \sim I$ characteristic curves of different light frequencies