

Physics Lab Equipments & Experimental Setups

ME 526 - Planck's Constant Apparatus using Photocell

Objective:

- To determine Planck's constant (h) using vacuum photocell.



Technical Specifications:

- Output voltages (Regulated) : 0-1V DC
- Meters (Digital) : 0-2 V DC, 0-200 μ A DC
- Photocell mounted in Wooden Box having window for injecting light and also for fixing the various Filters.
- Power supply & digital meters housed in metal cabinet & connections of all important outputs brought out at Bakelite front panel.
- Power Requirement : 220 VAC \pm 10%, 50Hz

Standard Accessories:

- One wooden plank with $\frac{1}{2}$ Meter scale, filters, suitable light source, patch chords & instruction manual

ME 526L - Planck's Constant Apparatus using LED

Objective:

- To determine Planck's constant (h) using LED.



Technical Specifications:

- Output voltage (Regulated) : 0-5V DC
- Meters (Digital) : 0-2000 μ A & 20V DC
- Power supply & digital meters housed in metal cabinet, socket for LED Input, connections of various components & all important outputs brought out at Bakelite front panel.

Standard Accessories:

- 4 Sets of LEDs mounted with suitable connectors, patch chords & instruction manual.

ME 545 Energy Band Gap by Four Probe Method

Objective: Energy band gap of Semiconductor material (Ge Crystal) By four probe method.

Technical Specification :

Power supply unit is housed in metal cabinet and comprises of constant current generator 0-20mA, Oven Power Supply & built in Digital Voltmeter of 0-200mV/2V DC.

Probes Arrangement : It has four individually spring loaded, coated with Zn at the tips.

The probes are collinear and equally spaced.

The whole arrangement is mounted on a suitable stand and leads are provided for current and voltage measurements.

Sample : Ge (Germanium) crystal in the form of a chip slice.

Oven : Maximum Temp. : 200°C

Standard Accessories : Power chord, Patch chords & Instruction manual.

Crystal (Germanium), Oven with cable, Four probe & Thermometer 200°C

