

I-V Characteristics of Solar Cell (III)



General Aim

To study the spectral dependence of the incident light and the effect of parallel and series wiring of few cells.

Method

Optical Filters to study dependence of I-V of a solar cell. Also, connecting two cells in series and in parallel.

Learning Objectives (LOs)

- Describe the construction and operation of the PV cell.
- Enumerates the different factors that may affect the operation of the PV cell.

Theoretical Background/Context

Solar cells are generally made from semiconducting materials, which are sensitive to structural and environmental factors, e.g, the light intensity, which depends on the power delivered by the solar cell.

Principle of Work

Different optical filters can be attached to the opening of the lamp box to study the effect dependence of the I-V characteristics of a solar cell. In the second part, two solar cells can be connected in series or in parallel, to study the effect of the connection method and I-V characteristics and the cell' parameters.