

A REVIEW

Effect of temperature on solar cell with reference to electrical parameters

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ABSTRACT

The performance and overview use of solar cell is expressed in this research paper electric parameters are studies with reference to temperature variation. The variation in comparative effects the parameters like, open circuit voltage (V_{oc}), short circuit current density (J_{sc}), fill factor (FF) and efficiency (η), of solar cells based on semiconductor materials such as Ge, Si, CdTe, GaAs, InP and Cds, all these parameters has been investigated in the temperature range 275-525K. Results shows that all electrical parameters of solar cell such as open circuit voltage (V_{oc}), short circuit current density (J_{sc}), fill factor (FF) and efficiency (η) have changed with temperature variation. As well as the changes in these, parameters in terms of temperature value have been obtained. Results shows that change in temperature effects the current of cells.

Key Words : Open circuit voltage, Short circuit current density, Fill factor, Efficiency, Solar cell, Temperature

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