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Comparison of Zinc Oxide thin films deposited on the glass and polyethylene terephthalate substrates by thermal evaporation technique for applications in solar cells

M. G. FARAJ, K. IBRAHIM, [M. H. EISA](#), M. K. M. PAKHURUDDIN, M. Z. PAKHURUDDIN

Zinc Oxide (ZnO) thin films have been deposited onto glass and polyethylene terephthalate (PET) substrates at room temperature by thermal evaporation technique in a vacuum of about 3×10^{-5} torr. The effects of deposition on the structural, optical, and electrical properties of ZnO films were investigated. The topography of the ZnO thin films were examined by atomic force microscopy (AFM). The surface conductivity of the materials was analyzed using a four-probe meter. The optical transmission method using ultraviolet-visible spectrophotometer determines the refractive index n , reflectance R and energy gap of the ZnO on glass and ZnO on PET thin films.

Keywords: Zinc Oxide; thermal evaporation; Polyethylene Terephthalate; Glass; Optical properties; electrical properties

[23]. M. G. Faraj, K. Ibrahim and [M. H. Eisa](#), Comparison of cadmium sulphide (cds) deposited on different Substrates by Thermal Evaporation Technique for Applications in Solar Cells (Accepted, [2010](#))
