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OPTOELECTRONIC PROPERTIES OF n-Cds/p Cu PTHALOCYANINE HETEROJUNCTION SOLAR CELLS

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Development of low cost, Cds based thin film solar cells as an alternative to conventional Si- solar cells is an important area of photovoltaic research. We have fabricated thin film, heterojunction solar cells by vacuum evaporation of copper pthalocyanine on chemical bath deposited Cds films. Titanium has been used as the substrate for depositing Cds films, and comb shaped silver electrode has been used as the counter electrode. Dark and photo I-V characteristics have been investigated for the cells. The results obtained are found to be comparable with other types of Cds based solar cells. The chemical and thermal stability of copper pthalocyanine film, covering the Cds film is of a definite advantage in these types of cells.

References

Bmeleus, H.J. and Sharpe, A.G. (1965). Advances of Inorg. Chem. and Radio Chem. (Lever) vol. 7. p 27

Lokhande, C.D. and Pawar, S.H. (1982). Solid State Communications 44 (8) 1137

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