Cu_2O/Cu_xS THIN FILM SOLAR CELLS USING ELECTRODEPOSITED Cu_2O FILMS

K. Premasiri Kumara and W. Siripala
Dept. of Physics, University of Kelaniya.

Photovoltaic properties of Cu_2O/Cu_xS thin film solar cells, fabricated using electrodeposited Cu_2O films, were investigated as a function of heat treatment. The photocurrent-potential behaviour of electrodeposited Cu_2O films in a photo-electrochemical cell was also investigated. This investigation reveals that the efficiency of the Cu_2O/Cu_xS solar cells is very sensitive to the heat treatment and it can be improved significantly using this method of heat treatment. We have obtained the maximum values of V_{oc}= 300 mV and I_{sc}= 0.35 mA/cm^2 under AM1 artificial illumination. The aging of the cell was also investigated.

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