

CuO Thin Films Deposition by Spray Pyrolysis: Influence of Precursor Solution Properties

Authors : M. Lamri Zeggar, F. Bourfaa, A. Adjimi, F. Boutebakh, M. S. Aida, N. Attaf

Abstract : CuO thin films were deposited by spray ultrasonic pyrolysis with different precursor solution. Two starting solution slats were used namely: Copper acetate and copper chloride. The influence of these solutions on CuO thin films proprieties of is instigated. The X rays diffraction (XDR) analysis indicated that the films deposited with copper acetate are amorphous however the films elaborated with copper chloride have monoclinic structure. UV- Visible transmission spectra showed a strong absorbance of the deposited CuO thin films in the visible region. Electrical characterization has shown that CuO thin films prepared with copper acetate have a higher electrical conductivity.

Keywords : thin films, cuprous oxide, spray pyrolysis, precursor solution

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