2017

ELABORATION et CHARACTERISATION des COUCHES MINCES DES OYDES DE CUIVRES (CuO)

H. Serrar, A.BOUABELLOU, A.BOUHANK, Y.BELLAL, S.AMARA

Abstract : Copper oxide thin films were deposited by a low-cost and simple spray pyrolysis technique on glass substrate at 485° C, The aqueous copper nitrate Cu(NO3)2,6H2O with the different concentrations (0.1 M , 0.3M) used as a source of copper. The structural, morphological, and optical properties of the CuO thin films were studied by X-ray diffraction (XRD), Scanning electron microscopy (SEM), UV-vis-spectrophotometer. The X-ray diffraction patterns confirm the presence of CuO phases with preferential orientation along (-111), (111). The optical direct gap energy for Copper oxide calculated from optical absorption measurement is 2.82 eV, which is quite comparable with the report value

Keywords : Copper oxide, Spray pyrolysis, Thin films