PROPERTIES OF NiO THIN FILMS PREPARED BY CHEMICAL SPRAY PYROLYSIS USING $NiSO_4$ AND $NiCl_2$ PRECURSOR SOLUTIONS

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The chemical spray methods have been used to deposite NiO thin films on glass substrates. Nickel chloride hexahydrate, nickel sulfate tetrahydrate on the thin film properties has been studied to obtain influence of the precursor. Bare glasses have been used as substrates. 350^0C substrate temperature and 0,3M precursor concentration have been used for having NiO thin film in the experiment. Before deposition of NiO thin layer, the substrates were first cleaned by acetone, for eliminating any greasy track, and then cleaned in ultrasonic cleaner. ($NiCl_2.6H_2O$) and ($NiSO_4.4H_2O$), were used as precursor. The volume of the solution for each deposition was 60ml and precursors were deposited substrate at 350^0C substrate temperature by chemical spray pyrolysis. After deposition, NiO thin films were annelled at 425^0C for 3h either in room atmosphere or under vacuum by PLD. Properties of NiO thin film have been characterized by SEM and XRD.