

INFLUENCE OF PRECURSOR SOLUTION CONCENTRATION ON THE Cu_xS ($x = 1-2$) THIN FILMS SURFACE MORPHOLOGY

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Abstract: Cu_xS thin films were deposited at 235 °C onto TCO glass substrates by chemical spray pyrolysis technique from aqueous and alcoholic solution of $CuCl_2$ and thiourea. Maintaining the Cu/S molar ratio at 1:3, various concentrations of the precursor solution were used. The surface morphology of the films was studied by scanning electron microscopy (SEM). The as-deposited Cu_xS films are denser when alcoholic solutions are used. The average particle size increases with the increasing of precursor solution concentration.

Key words: Cu_xS thin films, surface morphology, precursor solution concentration.