

2. Structural properties of Spray pyrolytically deposited $\text{Cd}_x\text{Zn}_{1-x}\text{S}$ thin films

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ABSTRACT

Spray pyrolysis is a simple and inexpensive method for depositing thin films on large area. Thickness of the films was calculated by weighing method. The temperature was maintained at 350°C and was measured by pre-calibrated thermo-couple. Structural constant a_0 and c_0 are calculated from X-ray Debey-Scherrer method. Hexagonal structure of $\text{Cd}_x\text{Zn}_{1-x}\text{S}$ thin films has been confirmed by X-ray study. Lattice constant a_0 varies from 3.8 to 4.1 \AA and c_0 varies from 6.2 to 6.65 \AA as x parameter varies from 0.1 to 0.9. These variations follow Vegards law.

Keywords: Spray pyrolysis, Thin films, Lattice constant