

# **Characterization of Nanostructured CdS Thin film Prepared By Chemical Route**

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## **ABSTRACT :**

The optical, structural and morphological properties of CBD deposited CdS thin films have been studied under different growth condition. The films were characterized by X-ray diffraction, FEG-SEM and UV-VIS absorption. The grain size increases with increasing the cd/s ratio and or deposition time. The films shows polycrystalline cubic structured and predominant hexagonal phase with small crystallites. The optical band gap of film estimated using optical absorption is found to be 2.5 eV.

Keywords : CdS, thin films, X-ray diffraction, Structural properties