



Topological, Morphological, Structural and optical properties of CdS thin film with complex agents TEA /Ammonia mixer

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Abstract : This paper deals with the novel synthesis of CdS thin films with complexing agents TEA and Ammonia using the chemical bath deposition technique at room temperature UVis, FTIR, XRD, SEM and AFM characterisations were done. The influence of deposition and varying sulphur concentration on the optical absorption, transmittance, structural, surface morphological and topographical studies were examined. Band gap was observed for various sulphur concentrations structural studies revealed that, all the deposited films were nano-sized and crystalline in nature. Surface morphology showed that all the grains were spherical in nature and uniform. According to the properties observed it may be useful for solar cell and optoelectronics applications.

Keywords : CdS thin film, optical, structural, morphology, topography, complex agents, deposition duration and sulphur concentration.

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