World Academy of Science, Engineering and Technology
International Journal of Mathematical and Computational Sciences
Vol:14, No:12, 2020

Growth Nanostructured CdO Thin Film via Solid-Vapor Deposition

Authors : A. S. Obaid, K. H. T. Hassan, A. M. Asij, B. M. Salih, M. Bououdina

Abstract : Cadmium Oxide (CdO) thin films have been prepared by vacuum evaporation method on Si (111) substrate at room temperature using CdCl2 as a source of Cd. Detailed structural properties of the films are presented using XRD and SEM. The films was pure polycrystalline CdO phase with high crystallinity. The lattice constant average crystallite size of the nanocrystalline CdO thin films were calculated. SEM image confirms the formation nanostructure. Energy dispersive X-ray analysis spectra of CdO thin films shows the presence of Cd and O peaks only, no additional peaks attributed to impurities or contamination are observed.

Keywords : nanostructured CdO, solid-vapor deposition, quantum size effect, cadmium oxide
Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development
Conference Location : Chicago, United States
Conference Dates : December 12-13, 2020