Accepted Manuscript

Title: Structural, morphological, optical and electrical properties of e-beam deposited nanocrystalline CdTe:Cu alloy thin films from mechanical alloyed samples

Authors: Manimozhi Thangaraju, Archana Jayaram,

Ramamurthi Kandasamy

PII: S0169-4332(17)33297-X

DOI: https://doi.org/10.1016/j.apsusc.2017.11.054

Reference: APSUSC 37636

To appear in: APSUSC

Received date: 8-9-2017 Revised date: 3-11-2017 Accepted date: 7-11-2017

Please cite this article as: Thangaraju M, Jayaram A, Kandasamy R, Structural, morphological, optical and electrical properties of e-beam deposited nanocrystalline CdTe:Cu alloy thin films from mechanical alloyed samples, *Applied Surface Science* (2010), https://doi.org/10.1016/j.apsusc.2017.11.054

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



ACCEPTED MANUSCRIPT

Structural, morphological, optical and electrical properties of e-beam deposited nanocrystalline CdTe:Cu alloy thin films from mechanical alloyed samples

Manimozhi Thangaraju¹, Archana Jayaram², Ramamurthi Kandasamy^{1*}

¹ Crystal Growth and Thin Film Laboratory, Department of Physics and Nanotechnology, SRM University,

Kattankulathur 603203, Tamil Nadu, India.

² Center for Materials Science and Nano Devices, Department of Physics, SRM University, Kattankulathur 603203, Tamil Nadu, India.

*Corresponding Author

Dr. K. Ramamurthi

Crystal Growth and Thin Film Laboratory

Department of Physics and Nanotechnology

Faculty of Engineering and Technology

SRM University

Kattankulathur - 603 203

Kancheepuram Dt., Tamil Nadu, India.

Tel.: +91 431 2407057; fax: +91 431 2407045

E-mail address: krmurthin@yahoo.co.in; ramamurthin.k@ktr.srmuniv.ac.in

Highlights:

- CdTe and CdTe:Cu powder were prepared by the process of ball milling.
- CdTe and CdTe:Cu thin films were deposited by electron beam evaporation method.
- Surface roughness decreases with increasing Cu concentration in CdTe thin films.
- Maximum transmittance shifts to lower wavelength for increasing Cu concentration.
- Raman intensity is influenced due to Cu doping.

Download English Version:

https://daneshyari.com/en/article/7833557

Download Persian Version:

https://daneshyari.com/article/7833557

<u>Daneshyari.com</u>