

Turkish Journal of Physics

Turkish Journal

of

Physics

Computational Study for the Structural Change of the System $\text{CdTe}_{1-x}\text{S}_x$ Thin Film


Emad Khdayer AL-SHAKARCHI

Saddam University, College of Science, Department of Physics,

P.O. Box 64055, Al-Jadiriya, Baghdad-IRAQ

Abstract: Polycrystalline thin film of the graded system $\text{CdTe}_{1-x}\text{S}_x$ for $x=0,0.1,\dots,1$ are prepared by using thermal evaporation technique deposited on the glass substrate with an average thickness 3000 Å for each individual value of x . XRD technique is used with the aid of a computational program to study the phase change from cubic zinc blend structure to hexagonal wurtzite with an inversion point related to the x -value. It is found that $x=0.1$ gives us an inversion point in the structural change from cubic to hexagonal phase.

Key Words: Thin films, ternary compound, structural behaviour and miller indices

 [Keywords](#)
 [Authors](#)



phys@tubitak.gov.tr

[Scientific Journals Home](#)
[Page](#)

Turk. J. Phys., **25**, (2001), 355-362.

Full text: [pdf](#)

Other articles published in the same issue: [Turk. J. Phys., vol.25,iss.4.](#)