X-RAY DIFFRACTION STUDIES OF COBALT CHLORIDE DOPED GaAs & Ge MULTILAYER THIN FILMS

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ABSTRACT

Germanium doped with cobalt chloride has been grown by electron beam evaporation, having the thickness of layers of gallium arsenide and germanium as 7nm, the two layers systems (thickness 14nm) have been prepared on different substrate temperatures (Ts= 273 K,300 K and 350 K) in the high vacuum 5×10^{5} torr. The X-ray diffraction study of the films represents amorphous nature of lower deposition temperature but polycrystalline at higher deposition temperature. The film deposited at lower temperature were annealed film also behaves polycrystalline as film deposited at higher substrate temperature.

KEYWORDS: Dielectric Properties, X-Ray