

RBS Characteristic of Cd_{1-x}Zn_xS Thin Film Fabricated by Vacuum Deposition Method

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Abstract : Cd_{1-x}Zn_xS thin films have been fabricated from ZnS/CdS/ZnS multilayer thin film systems, by using the vacuum deposition method; the Rutherford back-scattering (RBS) technique have been applied in order to determine the: structure, composition, depth profile, and stoichiometric of these films. The influence of the chemical and heat treatments on the produced films also have been investigated; the RBS spectra of the films showed that homogenous Cd_{1-x}Zn_xS can be synthesized with x=0.45.

Keywords : Cd_{1-x}Zn_xS, chemical treatment, depth profile, heat treatment, RBS, RUMP simulation, thin film, vacuum deposition, ZnS/CdS/ZnS

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