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RBS Characteristic of Cd1-xZnxS Thin Film Fabricated by Vacuum Deposition Method

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Abstract : Cd1-xZnxS thins 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 Cd1-xZnxS can be synthesized with x=0.45.

 $\textbf{Keywords:} \ \texttt{Cd1-xZnxS}, \ \textbf{chemical treatment, depth profile, heat treatment, RBS, RUMP simulation, thin film, vacuum and the simulation of the simu$

deposition, ZnS/CdS/ZnS

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