

Comparative Studies on Thin Film of ZnO Deposited by Spray Pyrolysis and Sputtering Technique

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Abstract : In this study, thin films of ZnO were synthesized by two techniques namely RF sputtering and spray pyrolysis. The films were deposited on corning glass. The primary materials used are 99.99% pure. The optical and structural properties of the samples were studied. It has been noted that the samples deposited by Spray pyrolysis have an average transmittance, refractive index and extinction coefficient as 80-90%, 1.33-1.44 and 13.11-27.52 respectively. Those deposited by sputtering method are 34-80%, 1.51-1.52 and 3.15-3.28. The XRD patterns of the samples show that they are polycrystalline.

Keywords : zinc oxide, spray pyrolysis, rf sputtering, optical properties, electrical properties

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