

Structural properties of ZnO thin films deposited by spin-coating method

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Abstract : ZnO thin films are deposited on the glass substrates by sol-gel spin coating technique by varying the concentration of the sol. X-ray diffraction (XRD) and scanning electron microscopy (SEM) analysis were used to investigate the effect of sol concentration on the crystallinity and surface morphology of the films. X-ray diffraction showed that ZnO films were polycrystalline and have the hexagonal structure. The crystallites are preferentially oriented with (002) and the appearance of only (002) c-axis orientation for precursor concentration at 0.1 M.

Keywords : ZnO, Thin films, sol-gel, concentration