

HIGHLY TEXTURED ZnO AND ZnO:V THIN FILMS DEPOSITED BY PULSED LASER DEPOSITION

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ABSTRACT. In this work ZnO and ZnO doped vanadium (1 - 6 %) thin films were deposited on glass substrate by the pulsed laser deposition technique. The films were deposited at 500°C under oxygen ambient pressure of 10^{-2} mbar with a laser fluence of 2 J/cm². The study of structural properties of the films as a function of the vanadium concentration was investigated using XRD analysis. The patterns shows that all samples doped and undoped are completely c-axis oriented with a high crystalline quality. Influence of doping concentration in calculated grain size values was discussed.

KEYWORDS: *Vanadium-doped ZnO; Pulsed Laser Deposition; X-ray Diffraction.*