

# **A Study on Structural Properties of Ag Doped ZnO Thin Films**

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## **Abstract**

Ag (0.5, 1.5 and 2.5 wt%) doped ZnO (SZO) thin films were synthesized by co-precipitation method with varying parameters like doping concentration and annealing temperature. The structural and morphological properties of SZO films were investigated. The X-Ray Diffraction (XRD) indicated the poly crystalline nature having hexagonal Wurtzite crystal structure. Scanning Electron Microscopy (SEM) photos show uniform distribution of spherical grains. The c-axis orientation and crystal size of the film increase annealing temperature. The morphologies and surface roughness were observed by SEM.

**Keywords:** Ag, ZnO, doped, co-precipitation, XRD, SEM

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