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STUDY OF STRUCTURAL , OPTICAL AND ELECTRICAL PROPERTIES OF ZnO THIN FILMS PREPARED

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Abstract : ABSTRACTIn this work, we studied deposited Cobalt- doped ZnO thin films via dip-coatingtechnique onto glass substrate, Zinc acetate dehydrate, cobalt acetate, 2-methoxyethanol andmonoethanolamine were used as starting materials. The obtained thin films here characterizedby X-ray diffraction, UV- visible absorption, Atomic force microscopy (AFM). It is foundthat all the thin films have good crystallinity and a preferential orientation o f crystallitesalong [002] axis of ZnO with wurtzite structure. The AFM have provided the information onmorphology of this films where the size grain and average surface roughnes (Rms).

Keywords : Thin films, ZnO, Cobalt, Dip-Coating, XRD, AFM, UV-Visible absorption.