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Some of the electrical and thermoelectrical properties for Cdo thin films preperaerd using pulsed laser deposition method

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ABSTRACT

A pulsed Nd:YAG laser was used for the ablation of CdO target in the presence of low oxygen presure as reactive atmosphere in order to prepare CdO TCO's films. the electrical properties of these film has been investicated at different oxygen presure (20-100) mbar reaching to the optimum oxygen pressure at which the device could be prepared. Minimum obtained electrical resistivity found to be 7.56×10^{-3} □.cm at 80 mbar of oxygen ambient without using post-deposition heat treatment. The thermoelectrical properties revealed the formation of n-type semiconducting material.