

# **Structural and optoelectrical investigation of transparent and conductive ZnO thin films prepared by chemical vapor deposition**

**M. Purica, E. Budianu, E. Rusu, M. Danila, R. Gavrila**

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## **Abstract**

Transparent and conductive ZnO thin films have been prepared by a method derived from chemical vapor deposition using Zn (C/sub 5/H/sub 7/O/sub 2/)/sub 2/ as Zn source. The deposited thin ZnO layers of /spl sim/0,1 /spl mu/m thickness on Si and InP semiconductor substrates have been investigated with respect to crystalline phase by X-ray diffraction (XRD), by AFM for surface morphology, spectrophotometric measurements in UV-VIS-NIR spectral range and optoelectrical measurements of ZnO/semiconductor heterostructures.