

# **ZnO Micro/Nano Structures by MOCVD and Vapour Transport Technique: Growth and Characterization**

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## **Abstract**

ZnO micro/nano structures were grown by metalo-organic chemical vapour deposition (MOCVD) and chemical vapour transport and condensation deposition process on Si and glass substrates. Using MOCVD method were grown uniform layers consisting of ZnO nanorods, or multilayer structures composed of nanorods and microrods arrays by the variation of the Ar carrier gas flow rate. A variety of hierarchical ZnO structures were grown on a textured ZnO layer using chemical vapour transport and condensation deposition process. Morphology, structural and optical properties of the obtained ZnO nanostructures are studied by means of scanning electron microscopy (SEM), X-ray diffraction (XRD) analysis and photoluminescence (PL).

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