

# **ZnO thin film optical window as partner for photodetecting heterostructures on Si and InP**

**E. Budianu, M. Purica, R. Gavrilă, S. Nastase, E. Rusu,  
S.V. Slobodchikov, M. Turcu**

<https://doi.org/10.1109/SMICND.1999.810544>

## **Abstract**

Thin films of ZnO were deposited by thermal decomposition of  $\text{Zn}(\text{C}/\text{sub } 5/\text{H}/\text{sub } 7/\text{O}/\text{sub } 2)/\text{sub } 2/$  on semiconductor substrate, n-type silicon, p-type InP and also on transparent glass substrate. The heterostructures of ZnO/Si and ZnO/InP were prepared and investigated for optical properties by spectrophotometry and surface morphology by AFM. The lateral photovoltage characteristic and surface roughness demonstrate availability of heterostructures with ZnO thin film for optoelectronic devices.