



Contribution ID: 282

Type: Poster Presentation

## Reactive DC sputter deposition and characterisation of AlN thin films

Wednesday, 9 July 2014 17:10 (1h 50m)

**Abstract content &nbsp; (Max 300 words)<br><a href="http://events.saip.org.za/getFile.py/a" target="\_blank">Formatting &<br>Special chars</a>**

Thin films of Aluminium Nitride (AlN) have been deposited on Si wafers using RF reactive sputter deposition in a nitrogen ambient. AlN is a wide bandgap semiconductor suitable for deep ultraviolet optoelectronics. The films have been characterized using Atomic Force Microscopy (AFM), Rutherford Backscattering Spectrometry (RBS), Scanning Electron Microscopy (SEM) and the oxygen content has been profiled using resonant RBS. The films were found to be smooth and uniform and adhere well to the Si substrate.

**Apply to be<br> considered for a student <br> &  award (Yes / No)?**

No

**Level for award<br>& (Hons, MSc, <br> &  PhD)?**

N/A

**Main supervisor (name and email)<br>and his / her institution**

N/A

**Would you like to <br> submit a short paper <br> for the Conference <br> Proceedings (Yes / No)?**

Yes

**Primary author:** Mr NYAWO, Thembinkosi Goodman (University of Zululand)

**Co-authors:** Prof. NDWANDWE, Muzi (University of Zululand); Ms CHONCO, Nelisiwe (University of Zululand); Mr MASANGO, Thuba (University of Zululand); Mr THETHWAYO, Thulani (University of Zululand)

**Presenter:** Mr NYAWO, Thembinkosi Goodman (University of Zululand)

**Session Classification:** Poster2

**Track Classification:** Track A - Division for Physics of Condensed Matter and Materials