

SAIP2012



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Contribution ID : 202

Synthesis and characterisation of sputter deposited AlN thin films

Tuesday 10 Jul 2012 at 17:30 (02h00')

Abstract :

AlN thin films were deposited on Si<100> substrates and on Cu covered Si substrate by DC magnetron sputtering under varying conditions of power, pressure, argon and nitrogen gas flow rates as well as temperature and characterized by SEM, AFM, RBS, resonant RBS and XRD. The surface morphology of the films change with pressure as seen from AFM results. Voltage biasing the films also changes the characteristics of the films. The colour of the films varied depending on the deposition conditions and have been expressed in the Lab* colour system. Potential uses of such films are as protective hard coatings.

Award :

Yes

Level :

MSc

Supervisor :

Muzi Ndwandwe, muzi.ndwandwe@gmail.com , University of Zululand

Paper :

No

Primary authors : Mr. HLATSHWAYO, Simphiwe (University of Zululand) ; Ms. MBUYISA, Puleng (University of Zululand) ; Mr. NYAWO, Thembinkosi (University of Zululand) ; Prof. NDWANDWE, Muzi (University of Zululand)

Co-authors :

Presenter : Mr. HLATSHWAYO, Simphiwe (University of Zululand)

Session classification : Poster Session

Track classification : Track A - Division for Condensed Matter Physics and Materials

Type : Poster Presentation