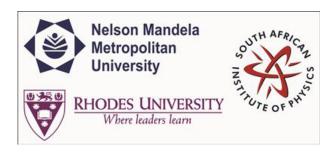
## **SAIP2015**



Contribution ID: 213

Type: Poster Presentation

## Electrical characterization of undoped and niobium-doped n-silicon diodes

Tuesday, 30 June 2015 16:10 (1h 50m)

Abstract content <br/> &nbsp; (Max 300 words)<br/> dry-<a href="http://events.saip.org.za/getFile.py/starget="\_blank">Formatting &<br/> &class="blank">Formatting &class="blan

The research undertaken was to characterize the Schottky diodes fabricated on undoped and metal-doped n-silicon substrate using current-voltage (I-V) and capacitance-voltage (C-V) measurements. The metal used is niobium. The obtained results were used to investigate the effects of niobium on silicon material. The I-V data were used to extract the saturation current, the ideality factor and Schottky barrier height, while the C-V data on the other hand, was used to determine the doping profiles for all fabricated diodes. In overall, the results show that the silicon has become relaxation-like.

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