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## Thermal stability of titanium Schottky contacts and defects introduced in epitaxial p-Si

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

The electronic and thermal properties of defects introduced during electron beam deposition (EBD) and isochronal annealing of titanium (Ti) contacts on epitaxial p-Si were investigated. In this work, Ti Schottky contacts were annealed with in a temperature range of 50 °C-400 °C. Current-voltage (I-V) measurements were conducted to monitor the change in electrical characteristics with every annealing step. A barrier height of 0.57 eV was measured on the as-deposited sample. Deep level transient spectroscopy (DLTS) and Laplace-DLTS techniques were employed to identify the defects induced after electron beam deposition (EBD) and isochronal annealing of the Ti Schottky contacts. The defect level identified on the as-deposited sample was a hole trap at 0.35 eV, known as the K-centre.

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PhD

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

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Yes

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