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

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Abstract content
 (Max 300 words)
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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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Yes

Level for award (Hons, MSc, PhD, N/A)?

MSc

Main supervisor (name and email) and his / her institution

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