Contribution ID: **57** Type: **not specified**

Radiation damage investigation of epitaxial p-type Schottky diodes using TCAD simulation

Tuesday 29 November 2022 09:50 (20 minutes)

This study is based on the IV, CV and CCE measurements of p-type Schottky diodes with 50 µm epitaxial layer to investigate the radiation bulk damage. Non-irradiated and various neutron irradiated (1e12, 1e13, 1e14, 1e15 and 1e16 [1MeV n_eq/cm^2]) diodes are being tested at RAL and Carleton University. Properties extracted from the measurements have been used in the TCAD simulations. In this talk, details of the procedure of the simulation will be given. And the comparisons of the simulations and the measurements will be presented.

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Session Classification: Defect and Material Characterization