Contribution ID: **120** Type: **Poster Presentation**

Electrical and surface morphological studies of palladium and ruthenium Schottky diodes on n-Ge (100)

Wednesday, 13 July 2011 17:00 (2 hours)

<p>Palladium (Pd) and ruthenium (Ru) Schottky barrier diodes were fabricated on (100) Sb-doped n-type germanium using resistive evaporation and electron beam deposition systems, respectively. Electrical characterization of these diodes using current-voltage (I-V) measurements was performed under various annealing conditions. The morphological evolution of the surface was analysed using the scanning electron microscopy. The variation of the electrical and structural properties of these Schottky diodes can be attributed to combined effects of interfacial reaction and phase transformation during the annealing process. Thermal stability of both the Pd/n-Ge (100) and Ru/n-Ge (100) Schottky diodes is maintained up to annealing temperature of 550℃. Results have also indicated that the onset temperature for agglomeration in Pd/n-Ge (100) system occurs between 500 – 600℃, and in Ru/n-Ge (100) system occurs between 600 – 700℃.

Level (Hons, MSc,
   PhD, other)?

other

Consider for a student
   award (Yes / No)?

no

Would you like to <br> submit a short paper <br> for the Conference
 Proceedings (Yes / No)?

Yes

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