

## Study of cluster related effects in n-irradiated Epi-Do and MCz diodes

*Monday, 2 June 2008 10:20 (20 minutes)*

Isochronal annealing studies have been performed on neutron-irradiated Epi-Do and MCz diodes. The MCz diode, irradiated with  $3E11$  n/cm<sup>2</sup>, was investigated with DLTS. The annealing results of cluster related defects will be presented and compared to reverse current data. After injection of 1 Ampere forward current, a bistable effect of the cluster related defects E4 and E5 was observed. Further annealing experiments were performed, with alternating isochronal and isothermal annealing. The Epi-Do diode, irradiated with  $1E13$  n/cm<sup>2</sup> has been treated in the same way and TSC measurements were performed.

The aim of this study is, to characterize the bistable effect of E4 and E5 and the influence of the cluster related defects on the reverse current as well as on the filling conditions of point defects.

**Primary author:** JUNKES, Alexandra (University of Hamburg, Germany)

**Co-authors:** FRETWURST, Eckhart (University of Hamburg, Germany); PINTILIE, Ioana (NIMP Bucharest, Romania); MAKARENKO, Leonid (Belarusian State University, Minsk, Belarus)

**Presenter:** JUNKES, Alexandra (University of Hamburg, Germany)

**Session Classification:** Defect and Material Characterization

**Track Classification:** Defect and Material Characterization