

Charge Collection and Trapping in Epitaxial Silicon Detectors after Neutron Irradiation

Tuesday 17 November 2009 09:55 (20 minutes)

The charge collection and the trapping behaviour of 150 μm n-type epitaxial silicon detectors irradiated with neutron fluences between $1\text{E}15$ and $4\text{E}15$ cm^{-2} were investigated. Observed double peaks in the TCT signal could be simulated assuming parabolic electric fields. Contrary to previous assumptions of field independent trapping time constants the field dependence was studied. The experimental results and simulations will be presented and discussed

Author: Mr POEHLSEN, Thomas (University of Hamburg)

Co-authors: Dr FRETWURST, Eckhart (University of Hamburg); LANGE, Joern (University of Hamburg); Mr BECKER, Julian (University of Hamburg); Prof. KLANNER, Robert (University of Hamburg)

Presenter: Mr POEHLSEN, Thomas (University of Hamburg)

Session Classification: Pad Detector Characterization & Studies on Charge Multiplication