

Comparison of the performance of irradiated n-in-p planar pixel sensors of different active thickness

Thursday 31 May 2012 15:50 (20 minutes)

We present the results of the post-irradiation characterization of n-in-p pixels produced at CiS and at the Semiconductor Laboratory of Max-Planck-Institut. N-in-p pixels represent a cost-effective alternative to the n-in-n technology to instrument the outer layers of the new pixel systems at HL-LHC. The performance of this kind of detectors will be shown up to fluence of $1e16$ neq/cm², in terms of charge collection efficiency (CCE), noise occupancy and tracking efficiency obtained in beam tests. A comparison of the CCE for n-in-p pixels of active thickness between 75 μ m and 300 μ m will be shown.

A proposal for a new production at CiS of n-in-p pixels and diodes, as a common RD50 project will be also presented.

Author: MACCHIOLO, Anna (Max-Planck-Institut fuer Physik (Werner-Heisenberg-Institut) (D))

Presenter: MACCHIOLO, Anna (Max-Planck-Institut fuer Physik (Werner-Heisenberg-Institut) (D))

Session Classification: Full Detector Systems

Track Classification: Full Detector Systems