Contribution ID: **8** Type: **not specified**

Anneling of Charge Collection in Strip sensors and the Depletion Voltage

Thursday 4 June 2009 09:45 (20 minutes)

we have irradiated n-type and p-type magnetic Czochralski and Float Zone silicon detector to proton, pion and neutron fluences up to 1.3*1015 neq/cm2. The data are collected right after irradiation and after elevated temperature annealing at 60oC, corresponding to several years of annealing at room temperature. As a function of bias voltage V, the following electrical parameters were measured: C-V at room temperature to extract the depletion voltage Vdep, and the charge collection efficiency in a beta source at lowered temperature to determine the "efficiency voltage", i.e. the voltage at which the sensor becomes efficient at a threshold of 1 fC.

Author: SADROZINSKI, Hartmut (SCIPP, UC santa Cruz)

Co-author: UC SANTA CRUZ GANG, Univ. of New Mexico gang (ATLAS Upgrade)

Presenter: SADROZINSKI, Hartmut (SCIPP, UC santa Cruz)

Session Classification: Full detector systems