

Status report on the radiation tolerance assessment of CNM AIDA2020v2 and HPK-P2 LGADs.

Wednesday, 17 February 2021 16:10 (20 minutes)

The forward region of the CMS MIP Timing Detector, proposed for the HL-LHC upgrade, will be instrumented with timing detectors based on LGAD technology. Devices from two different producers, Hamamatsu Photonics (HPK2 campaign) and CNM-IMB (within the framework of AIDA 2020), tested by 3 different institutes (CERN, IFCA-CSIC and UZH) are presented in this talk. Electrical IV/CV characterizations of irradiated HPK2 ($4e14$, $8e14$, $1.5e15$ and $2.5e15$ neq/cm²) and AIDA2020 ($1.5e15$, $2.5e15$ neq/cm²) devices are presented. Timing measurements of these devices with laser and/or radioactive source are planned and will be, tentatively, included in this talk.

Primary authors: FERNANDEZ GARCIA, Marcos (Universidad de Cantabria and CSIC (ES)); MACCHIOLO, Anna (Max-Planck-Institut für Physik (DE)); VILA ALVAREZ, Ivan (Universidad de Cantabria (ES)); HIDALGO VIL-LENA, Salvador (Instituto de Microelectronica de Barcelona (ES)); MOLL, Michael (CERN); JARAMILLO, Richard (IFCA); CURRAS RIVERA, Esteban (Universidad de Cantabria (ES))

Presenter: FERNANDEZ GARCIA, Marcos (Universidad de Cantabria and CSIC (ES))

Session Classification: Session 8: LGAD 1

Track Classification: LGAD