TREDI2020: 15th "Trento" Workshop on Advanced Silicon Radiation Detectors



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Measurements with Si detectors irradiated to extreme fluences

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Results of measurements with thin pad silicon detectors irradiated with reactor neutrons to 1e17 n/cm2 will be presented. Measurements were made with CNM LGAD pad detectors made on 75 um thick epitaxial layer on low resistivity support silicon. LGADs were chosen because this was the available set of thin pad detectors that could withstand high bias voltages. Edge-TCT, charge collection with Sr-90 and detector current were measured under reverse and forward bias. Annealing at 60 C was studied.

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Track Classification: hybrid sensors (3D, LGAD)