

# Charge Collection measurements of n-in-p strip detectors after mixed irradiation to HL-LHC fluences and annealing

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Planar n-in-p strip sensors produced by Hamamatsu Photonics were irradiated in consecutive irradiation steps with pions of 280 MeV/c, protons of 25 MeV/c and reactor neutrons resulting in a combined fluence of up to  $2.8 \times 10^{15}$  neq/cm<sup>2</sup>.

The 320  $\mu$ m thick devices with p-stop interstrip isolation structures are investigated using electrons from a Sr90 source based on the ALIBAVA readout system. After each irradiation step both charge collection and noise measurements have been conducted. After irradiation to the highest dose consecutive annealing steps were at 60°C performed and again measurements with the beta source setup carried out.

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