Charge Collection Efficiency of proton-irradiated small-cell 3D strip sensors up to 1.7E16 neq/cm2 equivalence fluence

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A study of Silicon strip 3D sensors of sizes 50 um x 50 um and 25 um x 100 um, fabricated at CNM using doublesided technology is shown. Sensors are wire-bonded to ALIBAVA read-out system. Results about charge collection of non irradiated sensors are presented, and also irradiated up to fluences of 1.7E16. The response of the sensors in both a test beam of 120 GeV protons and pions, and radioactive source 90Sr measurements is analyzed.

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