

Characterization of 3D-DDTC strip sensors with passing-through columns

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We report on the characterization of newly developed Double-sided Double Type Column (DDTC) 3D detectors produced by FBK in Trento. Pre-irradiation measurements on these sensors include charge collection measurements using a Beta source to test the sensors performance in terms of absolute charge deposited, as well as laser scan measurements in order to investigate the spatial uniformity of the sensors response. Current-voltage and capacitance-voltage measurements as well as simulation of the punch-through biasing of the sensors were also carried out.

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