

Non uniform irradiation of CNM 3D sensors for AFP

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Pixel detectors with cylindrical electrodes that penetrate the silicon substrate (so called 3D detectors) offer advantages over standard planar sensors in terms of radiation hardness. In the framework of the ATLAS Forward Physics (AFP) program, work has been carried out to study the suitability of 3D pixel devices for forward proton tracking. Minimal dead area and high efficiency after inhomogeneous irradiation are critical requirements for the AFP. Recent results of the characterization of slim-edged devices and beam test studies of inhomogeneously irradiated pixel devices carried out by the 3D R&D and AFP ATLAS groups will be presented.

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