Irradiation tests of LF-CPIX CMOS sensor

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High Energy Particle Physics experiments at the LHC use hybrid silicon detectors, in both pixel and strip geometry, for their inner trackers. These detectors have proven to be very reliable and performant. Nevertheless, there is great interest in the development of depleted CMOS silicon detectors, which could achieve similar performances at lower cost of production and complexity. Studies of novel depleted CMOS prototypes, denoted as LF-CPIX, fabricated by Lfoundry are presented. The devices were measured before and after irradiation to a fluence of 10°15 neq/cm2 at the Birmingham MC40 Cyclotron facility.

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