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# Test-beam and simulation studies of the monolithic CMOS silicon sensor CLICTD

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The CLIC Tracker Detector (CLICTD) is a pixelated monolithic sensor targeting the requirements of the tracking detector for the Compact Linear Collider (CLIC). CLICTD is fabricated in a modified 180 nm CMOS imaging process. It features a high-resistivity epitaxial layer and a small collection diode. The front-end design is based on an innovative sub-pixel segmentation scheme which allows for the reduction of the digital circuitry while maintaining the small collection diode design. In this contribution, recent test-beam results for CLICTD assemblies with sensor thicknesses between 300 and 50 micrometers are presented. In particular, the sensor performance in dependence of the incidence angle of particle tracks is evaluated. Moreover, the test-beam results are supplemented with simulation studies using a combination of 3D TCAD and Monte-Carlo simulations with the Allpix Squared framework.

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