

Latest results of a monolithic active pixel sensor prototype for the CEPC vertex detector

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The proposed Circular Electron Positron Collider (CEPC) imposes new challenges for the vertex detector in terms of high resolution, low material, fast readout and low power. A Monolithic Active Pixel Sensor (MAPS) prototype, called TaichuPix, based on a data-driven structure and a column drain readout architecture, has been implemented to achieve fast readout. This poster presents the charge collection performance of TaichuPix2 by using a radioactive source. At the same time, an infrared laser setup was used to verify the spatial resolution, which indicates a spatial resolution better than 5 μm .

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