

ALPIDE pixel detector for tracking in space.

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The ALPIDE MAPS chip used in the ALICE silicon tracker upgrade, represents the state of the art for pixel-based tracking with silicon.

We investigated the possibility to use the ALPIDE chip in space applications using a setup derived from the ALICE Outer Barrel HIC.

We first addressed the issue of the power consumption and we will report on a special setup that provides a relevant power saving.

We then passed to address heat dissipation, material qualification for space, performance in vacuum and resistance to launch vibrations.

From our qualification test the ALPIDE chip results as a viable solution for space applications.

Secondary track (number)

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