

Qualification of a new supplier for silicon particle detectors

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Most modern particle physics experiments use silicon based sensors for their tracking systems. These sensors are able to detect particles generated in high energy collisions with high spatial resolution and therefore allow the precise reconstruction of particle tracks. So far only a few vendors were capable of producing silicon strip sensors with the quality needed in particle physics experiments. Together with the European-based semiconductor manufacturer Infineon Technologies AG (Infineon) the Institute of High Energy Physics of the Austrian Academy of Sciences (HEPHY) developed planar silicon strip sensors in p-on-n technology.

This talk presents the development, production, electrical characterization, beam tests and gamma-irradiation of the first sensors batches produced by Infineon.

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