

SiC AC-LGAD Timing Pixel Detector

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Pixelated SiC LGAD device with both timing and position capabilities has the potential to address the 4D tracking in extreme fluence of future collider experiment. To improve the tracking and timing capabilities of SiC-LGAD device, this project proposes to fabricate the AC-coupled LGAD SiC device with pixelated structures. These devices will be characterized by spacial and temporal resolution before and after proton/neutron irradiation up to fluences of $1e17$ neq. The SiC properties after high fluence irradiation will be investigated with correlation of the detector performance.

Type of presentation (in-person/online)

online presentation (zoom)

Type of presentation (scientific results or project proposal)

project proposal for future work

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