

9th International "Hiroshima" Symposium on the Development and Application of Semiconductor Tracking Detectors, Hiroshima, Japan

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Scribe-Cleave-Passivate (SCP) Slim Edge Technology

Monday, September 2, 2013 5:00 PM (20 minutes)

We are pursuing a "slim edge" technology which allows a drastic reduction of inactive region along the perimeter of silicon detectors. Such reduction would benefit construction of large-area tracker and imaging systems. Key components of this method are surface scribing, cleaving, and passivation of the resulting sidewall. We will give a short overview of the project and describe recent progress. A particular emphasis will be given to device performance physics: charge collection near the edge and studies of radiation hardness of the slim edge technology.

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Session Classification: Session 2

Track Classification: Pixels (including CCD's) - Charged particle tracking