

Abstract Submitted
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Characterization of Single Event Latchup Cross-Section for ALPIDE¹ JOANNA SZORNEL, UC Berkeley, ELAD MICHAEL, FERNANDO TORALES - ACOSTA, Stonybrook University, LEO GREINER, BARBARA JACAK, LBNL — Latchup cross-section was characterized for a prototype of ALPIDE (ALICE PIXel DETector), a silicon pixel detector proposed for use in the ALICE inner tracking system. Before being implemented, the sensor needs to be tested to verify its effectiveness. When active it will be subject to bombardment from energetic ions which can cause single event latchups (SELs). These occur when parasitic effects result in short-circuits, causing potentially damaging increases in current. Ions with various LETs (5 - 40 MeV) were used to induce SELs whereupon event cross-section was measured. The likelihood of the sensor experiencing SEL increases with greater ion LET and fluence.

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