23rd International Workshop on Radiation Imaging Detectors



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Results from Single Event Effect Tests with MIMOSIS-1

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The MIMOSIS CPS will equip the Micro Vertex Detector of the Compressed Baryonic Matter experiment at FAIR. It is to combine a $5\mu s/5\mu m$ space and time resolution with a peak rate capability of 80 MHz/cm² and a tolerance to > 5 MRad and 1e14 neq/cm². Moreover, it is to tolerate ~ 1 kHz relativistic Au-ions from the beam halo. A first full size prototype, MIMOSIS-1, has been produced by IPHC Strasbourg, Goethe University Frankfurt and GSI.

The cross-section for single event latch-ups and bit flips in the state machines of the sensors was measures by exposing it to a direct, intense heavy ion beam. The experimental findings are reported.

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