

Status of Silicon Strip Sensor Measurements at Liverpool

Wednesday 11 June 2014 15:00 (20 minutes)

To investigate the current dependence of irradiated silicon strip detectors, ATLAS07 and Micron sensors were irradiated at Birmingham and Ljubljana with doses up to 2×10^{16} neq/cm². IV measurements were performed at different temperatures which allow the calculation of the effective gap energy E_g (IV scaling) and the current related damage rate α .

TCT and edge TCT (Transient Current Technique) measurements with red and IR laser of dedicated RD50 charge multiplication sensors allow a deeper investigation of charge collection. The multiplication sensors, produced by Micron Semiconductor Ltd (UK) and irradiated at fluences of 1×10^{15} neq/cm² and 5×10^{15} neq/cm², feature many different structures specially designed to take advantage of multiplication after heavy irradiation.

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Session Classification: Session 2 - Detector Characterization