

PTP and the inter-strip capacitance and resistance for irradiated ATLAS07 mini-sensors.

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PTP against beam splashes together with the inter-strip capacitance and resistance have been measured on the heavily irradiated (4×10^{14} , 2×10^{15} and 1×10^{16} neq/cm²) and non-irradiated samples of n-on-p HPK ATLAS07 mini-sensors. Each sample consists of four mini-sensors with special PTP structures A, B, C and D and with three different ion concentrations of p-stop and p-stop with p-spray n-strip isolation: 2×10^{12} , 4×10^{12} and 1×10^{13} ion/cm². There were found no onsets of micro-discharges below of -600 V of reverse bias. Punch through voltage is increasing with growing fluency and reaches its valuable maximum at fluency 2×10^{15} neq/cm² for sample of 1×10^{13} ion/cm². PTV is smallest at 1×10^{16} neq/cm² from all tested fluencies including zero one. Inter-strip capacitance does not depend on fluency up to 1×10^{16} neq/cm² and on the p-stop ion concentration. Inter-strip resistance is decreasing with fluency. Study is continuing.

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