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Response of AC-LGADs to Ionizing and Non-ionizing Radiation Damage

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Low gain avalanche detectors with DC- and AC-coupled readout were exposed to ionizing and non-ionizing radiation at levels relevant to future experiments in particle, nuclear, and medical physics, and to astrophysics. Damage-related change in their acceptor removal constants and in the resistivity of the region between the guard ring and the active array are reported, as is change in the leakage current of the active volumes.

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