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Fluence profiling at JSI TRIGA reactor irradiation facility

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In this contribution, we present an analysis of the flunece profile at the JSI TRIGA neutron reactor facility in Ljubljana.

For the study, 5×5 array LGAD sensors are used, with $1.3\times1.3~\mathrm{mm}^2$ pad area. The gain layer active doping has been extracted via C-V measurements for each pad before and after irradiation at $1.5\cdot10^{15}~\mathrm{n}_{eq}/\mathrm{cm}^2$, providing a precise measurement of fluence distribution.

Experimental results are compared to neutron fluence expectations calculated with Monte Carlo techniques.

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