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The MAJORANA DEMONSTRATOR assay program and background summary

The MAJORANA DEMONSTRATOR will perform a search for neutrinoless double-beta decay in 76Ge. The experiment is currently under construction at the Sanford Underground Research Facility in South Dakota, USA. It will use an array of 40kg of germanium detectors, 30kg of which will be enriched.
The sensitivity of a neutrinoless double-beta decay search increases with the exposure of the experiment, but is ultimately limited by the achieved background level. The major goal of the demonstrator is to reach a background level of < 3 cts/ROI/t-y to prove the feasibility of a tonne-scale experiment.
This poster presents the strategy for achieving this background goal in the MAJORANA DEMONSTRATOR. The material assay program and a summary of the expected background contributions will be presented.

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