

The MAJORANA DEMONSTRATOR double-beta decay experiment

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The MAJORANA DEMONSTRATOR is a 40 kg array of high purity germanium detectors being constructed at the 4850 foot level of the Sanford Underground Research Facility. Up to 30 kg of these detectors will be enriched to greater than 86% in germanium-76. The goal of the DEMONSTRATOR is to establish the feasibility of constructing a tonne-scale, germanium based double-beta decay experiment by demonstrating a background rate less than 3 counts/tonne/year in the 4 keV wide germanium-76 neutrinoless double-beta decay region of interest. The first module of detectors is expected to begin taking data at the end of 2013. This presentation will discuss the DEMONSTRATOR construction status and outlook.

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