DNP17-2017-020001

Abstract for an Invited Paper
for the DNP17 Meeting of
the American Physical Society

The ^{76}Ge Program to Search for Neutrinoless Double-Beta Decay

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Neutrinoless double-beta decay searches play a major role in determining the nature of neutrinos, the existence of a lepton violating process, and the effective Majorana neutrino mass. The MAJORANA and GERDA Collaborations are operating arrays of high purity Ge detectors to search for neutrinoless double-beta decay in ^{76}Ge. The MAJORANA DEMONSTRATOR is operating at the Sanford Underground Research Facility in South Dakota while the GERDA experiment is operating at LNGS in Italy. The GERDA and MAJORANA DEMONSTRATOR experiments have achieved the lowest backgrounds in the neutrinoless double-beta decay region of interest. These results, coupled with the superior energy resolution (0.1%) of Ge detectors demonstrate that ^{76}Ge is an ideal isotope for a large next generation experiment. The LEGEND collaboration, with 220 members from 47 institutions around the world, has been formed to pursue a ton scale ^{76}Ge experiment. Building on the successes of GERDA and MAJORANA, the LEGEND collaboration aims to develop a phased neutrinoless double-beta decay experimental program with discovery potential at a half-life significantly longer than 10^{27} years. This talk will present the initial results from the MAJORANA DEMONSTRATOR and GERDA experiments and the plan for the LEGEND program.