

Abstract Submitted
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Performance of the MAJORANA Low-Mass Front-End in liquid cryogen JORDAN MYSLIK, NICOLAS ABGRALL, PAUL BARTON, LUKAS HEHN, ALAN POON, MARCOS TURQUETI, KAI VETTER, SERGIO ZIMMERMANN, Lawrence Berkeley Natl Lab, LEGEND COLLABORATION — The next generation of neutrinoless double-beta decay experiments requires further reduction of backgrounds to maximize discovery potential. Using ^{76}Ge as a target, the LEGEND collaboration plans to achieve this through a combination of the low background materials employed by the MAJORANA DEMONSTRATOR, and the liquid argon active veto employed by GERDA. Given its low noise and world-leading low backgrounds, the MAJORANA Low-Mass Front-End (LMFE) is the baseline design for detector readout in LEGEND. However, as a component designed for use in a vacuum cryostat, its performance submerged in liquid cryogen must be evaluated. This talk will describe the MAJORANA LMFE, the testing performed to evaluate its performance in liquid cryogen, and the results of these tests.

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