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Type: **Oral**

Testing of CRYO ASIC for the nEXO Experiment

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nEXO is a next-generation liquid xenon experiment to search for the neutrino-less double beta decay of ^{136}Xe , with a lifetime sensitivity goal of greater than 10^{28} years. The experiment will use an array of charge tiles composed of crossed metal strips to record ionization electrons. An in-xenon cryogenic application-specific integrated circuit (ASIC) named CRYO ASIC has been designed by SLAC for amplification, digitization and multiplexing of the charge signals. The CRYO ASIC mounted on an auxiliary board is characterized in a test stand comprised of a chamber filled with liquid xenon to mimic the nEXO experiment. This work presents the results of CRYO ASIC tests in a liquid xenon environment.

Early Career

Yes

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Session Classification: RDC1 + RDC4: Session #1

Track Classification: RDC Parallel Sessions: RDC1: Noble Element Detectors