

Abstract Submitted
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The Development of a Cosmic Ray Veto System¹ JOSEPH BUCHANAN-VEGA, Grambling State University, JESSICA DUNMORE, BRENT VANDEVENDER, JOHN WILKERSON, University of Washington — There are many experiments dedicated to the investigation of neutrino characteristics, such as the Majorana neutrinoless double-beta decay measurement, the Karlsruhe Tritium Neutrino Experiment, KATRIN, and the SNO solar neutrino experiment. Although the various neutrino experiments differ, they all must limit background interference because of the small numbers of events and/or the intervals of energies to be detected. At the University of Washington's Center for Experimental Nuclear Physics and Astrophysics (CENPA) an EG&G germanium detector and shield has been constructed to allow preliminary radioassay of materials to be used in neutrino experiments. The detector is enclosed in lead to shield from environmental low energy radiation, and includes a scintillator veto system to eliminate cosmic rays from data. This system also serves as a developmental opportunity for Majorana R&D allowing the characterization of the germanium detector digitization electronics and analysis software.

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