

XV Neutrino Telescopes Workshop
Palazzo Franchetti - Venice, 11-15 March 2013

Poster Session - Submission of Abstract

Submitter: Sabine Hemmer

PhD student, Università degli studi di Padova and INFN, Sezione di Padova,
Padova, Italy.

e-mail: sabine.hemmer@pd.infn.it

Author: S. Hemmer for the GERDA BEGe acceptance test group

Title of the poster: Keeping the background low: Production and testing of
the GERDA Phase II detectors

Abstract text:

The GERmanium Detector Array (GERDA) searches for neutrinoless double beta decay of ^{76}Ge . The first phase using ~ 15 kg of coaxial germanium detectors is ongoing. In a second phase, additional ~ 20 kg of newly produced Broad Energy Germanium (BEGe) detectors will be deployed. To limit the generation of cosmogenically induced radioisotopes, the exposure of the germanium to cosmic radiation during the detector production and testing was minimized. An acceptance and characterization campaign of the newly produced detectors was carried out at the HEROICA facility in the HADES underground laboratory in Mol, Belgium. An overview over the complete production process, from isotopic enrichment of the material to the detector testing protocol, will be presented.

Summary:

The poster summarizes the production process and acceptance testing of the newly produced BEGe detectors for GERDA Phase II.