

Optimization of Drift Time Measurement in P-Type Point-Contact HPGe Detectors

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P-type point contact (PPC) high-purity germanium detectors have gained substantial interests in the search for neutrinoless double beta decay ($0\nu\beta\beta$) due to their background-rejection capabilities and excellent energy resolution. The drift time of charge carriers in the detector can be used in determining the position of an energy deposition and identifying sources of the background. One can also use drift time to look for evidence of charge trapping by impurities in the germanium crystal and correct the degraded energy resolution. In this presentation, we discuss an optimized method for measuring the drift time. The results will be demonstrated using both experimental and simulated data.

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Please select: Experiment or Theory

Experiment

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