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# Data Analysis Methods in the νGeN Experiment Searching for Neutrino Scattering

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The νGeN experiment is designed to study rare low-energy neutrino interactions using a germanium detector located under the Kalinin nuclear reactor. Because the expected signals are extremely small, the analysis relies on careful data treatment. Signals from different electronic channels are combined to suppress noise, while graphical and timing cuts are applied to remove spurious pulses caused by electronic resets, microphonics, or cosmic muons. Background stability is ensured by monitoring radon activity, temperature fluctuations, and electronic interference, with unstable periods excluded from the dataset. Efficiency corrections and dead-time factors are derived from calibration sources and pulse generators. After these procedures, reactor ON and OFF data are directly compared.

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