

Abstract Submitted
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Energy Spectrums from Unshaped Signals ELIZA OSENBAUGH-
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Digital signal processing was used to produce an energy spectrum from the raw out-
put of a preamplifier. It is our hope to use the signals generated from the preamplifier
for pulse shape discrimination. Therefore we needed to generate a energy spectrum
without relaying on the shaping done by an amplifier. The voltage pulse produced
by a germanium detector was recorded with a flash ADC. The data was then filtered
twice, first using a low-pass recursive filter to get rid of high frequency noise and
again to remove lower frequency problems. The resulting pulse was integrated to
determine the energy. This was tested with various spectrums and produces ex-
pected results with a small decrease in energy resolution as compared to shaped
data. At this time optimal filtering is being studied as a possible way to increase
energy resolution.

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