Abstract Submitted
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Determining the Response Function of HPGe Detectors (Clovershare)[1] MATTHEW CHAMBERLAIN, ANNA SIMON, CRAIG REINGOLD, Univ. of Notre Dame, ALEX VOINOV, Ohio University, PETER HUMBY, NATHAN COOPER, Univ. of Richmond, BRYANT VANDE KOLK, KAREN OSTDIEK, LUIS MORALES, SHANE MOYLAN, ED LAMARE, SAMUEL HENDERSON, ADAM CLARK, AUSTIN NELSON, TYLER ANDERSON, SABRINA STRAUSS, BRYCE FRENTZ, XUYANG LI, MICHAEL SKULKSI, PATRICK FASANO, MATTHEW HALL, JAMES KELLEY, CHRISTOPHER SEYMOUR, Univ. of Notre Dame — Clovershare is a set of HPGe clover detectors with BGO shields. For the experiments described here (performed at the University of Notre Dame) the detector array consisted of six clover detectors located at 45°,90°, and 135° on either side of a target all read by a digital data acquisition system (DDAS). The experiment's goal was to determine the gamma strength function of ^{90}Zr, via measurement of gamma-gamma coincidences following proton capture on ^{89}Y. To determine the response function of the array over a wide range of energies, gamma-ray spectra from ^{152}Eu as well as known resonances in the ^{27}Al(p,γ)^{28}Si reaction were used. Obtained response function will be presented, as well as the preliminary results for the measured ^{89}Y(p,$\gamma\gamma$)^{90}Zr reaction.

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