

Abstract Submitted  
for the APR16 Meeting of  
The American Physical Society

**Differential (p,p') and (p,d) Cross Sections of  $^{89}\text{Y}$  and  $^{92}\text{Zr}$**  MOLLY WAKELING, Air Force Institute of Technology, JASON BURKE, Lawrence Livermore National Laboratory, JOHNATHON KOGLIN, Pennsylvania State University, JOHN MCCLORY, Air Force Institute of Technology — Differential cross sections for the (p,p') and (p,d) reactions on  $^{89}\text{Y}$  and  $^{92}\text{Zr}$  were measured using a 28.5-MeV proton beam at the 88-inch cyclotron at Lawrence Berkeley National Laboratory. Angular distributions were obtained for the ground state and several excited states of each isotope using silicon detector telescopes over angles  $10^\circ$  to  $140^\circ$  in the reaction plane. Angular distributions for unresolved higher-energy states up to 22 MeV were also obtained. These data were obtained by fitting a Gaussian function to each peak in the energy spectra using the ROOT toolkit and integrating the number of counts under each peak. The cross sections will be included in nuclear structure models so that neutron and other particle reaction cross sections can be predicted for other isotopes, including eventually those farther from stability and those whose half-lives are too short to measure experimentally.

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Date submitted: 31 Dec 2015

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