

Abstract Submitted  
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**Dual-energy Operations at LANSCE for Proton Induced Nuclear Cross Section Measurements** M.S. GULLEY, C. PILLAI, L.J. BITTEKER, A. SEIFTER, F.M. NORTIER, D.M. SMITH, H. BACH, A.J. COUTURE, R.E. GRITZO, J.L. ULLMANN, F.O. VALDEZ, S.A. WENDER, Los Alamos National Laboratory — The WNR facility at LANSCE is preparing for a set of proton induced cross section measurements in support of the LANL Isotope Production Program. To determine the best way to produce particular isotopes, it is necessary to measure the production rate's energy dependence. The first measurements will use a 197-MeV proton beam, which prompted recovery of the facility's ability to transport multiple energy proton beams simultaneously to different experimental areas to ensure that an 800-MeV beam is available for Proton Radiography or Ultra-Cold Neutron experiments while a sample is irradiated with a lower energy beam for the cross section measurements. The ability to change the beam energy pulse-to-pulse was built into the original accelerator controls, but the multiple energy controls were unused for over a decade and the system was re-commissioned for this effort. These experiments form part of an effort to establish a capability for the measurement of cross sections in the 197 to 800 MeV energy range. The experiments are expected to provide the needed data for activities that may develop into a unique isotope production capability to compliment the existing 100-MeV IPF facility.

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