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Excited states of neutron rich Pd from fragmentation[1] A.A. HECHT, W.B. WALTERS, N. HOTELING, University of Maryland, P.F. MANTICA, A. BECERRIL, T. FLECKENSTEIN, G. LORUSSO, J. PEREIRA, J. PINTER, J. STOKER, M. QUINN, Michigan State University — The neutron rich region approaching N=82 and Z=50 is interesting for nuclear structure and nuclear astrophysics, both as a test of the shell closures far from stability and as the path for r-process nucleosynthesis. This region is difficult to access with fusion-evaporation reactions and novel techniques must be used. At the National Superconducting Cyclotron Laboratory (NSCL) an experiment was recently performed by fragmentation of a Xe beam using a Be target to examine isomers and beta decay from these neutron rich nuclei. The radioisotope fragments passed through several Si planar detectors and were implanted in a double-sided Si strip detector (DSSD) in the Beta Counting System (BCS). Fragments were identified via ΔE and TOF. Particle emitting decays were tracked in several layers of single sided strip detectors following the DSSD, while the SEGA array surrounding the DSSD was used to collect gamma emission following beta and isomer decay. Several neutron rich nuclei were observed in this experiment, including Ru, Rh, Pd, Ag, Cd, and In. Results on Pd will be discussed.

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