Low energy states in $^{124,126}$Cd Populated via the Beta Decay of $^{124,126}$Ag

J.C. BATCHELDER, S.-H. LIU, UNIRIB/ORAU, N.T. BREWER, J.H. HAMILTON, A.V. RAMAYYA, Vanderbilt University, C.J. GROSS, ORNL, M. KARNY, A.J. MENDEZ II, K. MIERNIK, K.P. RYKACEWSKI, D.W. STRACENER, ORNL, R. GRZYWACZ, M. MADURGA, D.T. MILLER, U. Tennessee, S.W. PADGETT, S.V. PAULASKAS, U. Tennessee, A. KUZNIAK, M. WOLINSKA-CICHOCKA, ORAU — The lowest lying levels in the neutron-rich even-even Cd isotopes have structures that resemble an anharmonic vibrator coupled to 2-proton intruder states. Deviations from this picture have been shown to occur in $^{112-120}$Cd isotopes [1,2]. To determine the systematics of these states across the neutron shell we have begun to measure the beta decays of the heavier even-mass Ag isotopes. $^{124,126}$Ag ions were produced via the proton-induced fission of U at the HRIBF at ORNL. 15 microA of 50 MeV p bombarded on a UCx target, and the fission products were then separated by a high-resolution magnetic isobar separator and deposited on a moving tape collector directly in the center of the LeRIBSS (Low-Energy RIB Spectroscopy station) array. Many new levels in $^{124,126}$Cd have been observed. These results and the systematics of the even-even Cd isotopes will be presented and discussed.