Abstract Submitted
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Beta decay studies of neutron-rich nuclei near ^{78}Ni S.N. LIDDICK, M. RAJABALI, R. GRZYWACZ, C.R. BINGHAM, I.G. DARBY, U. Tennessee, T. GINTER, P. MANTICA, MSU/NSCL, K.P. RYKACZEWSKI, ORNL, C. MAZZOCCHI, U Milan/INFN, J.C. BATCHELDER, UNIRIB/ORAU, S.V. ILYUSHKIN, J.A. WINGER, Miss St U, M. KARNY, K. MIERNIK, M. PFUTZNER, IEP Warsaw U — Experiments on nuclei near doubly magic ^{78}Ni can provide a wealth of information on the underlying nuclear structure in this region. Neutron-rich nuclei in the ^{78}Ni region were investigated through beta decay spectroscopy following their production from the fragmentation of a ^{86}Kr beam, at 140 AMev, on a Be target. The experimental setup consisted of a thick Double-sided Silicon Strip Detector for the correlation of implanted ions with their subsequent beta decays and the NSCL Segmented Germanium Array (SeGA) to monitor the emitted gamma rays. All detectors were read out with a new digital data acquisition system based on the Pixie16 boards produced by XIA and further developed at the University of Tennessee and Oak Ridge National Laboratory. Preliminary results of the experiment and the performance of the digital acquisition will be presented. This work was supported in part by the NSF Grant PHY-06-06007 and by the DOE Grants DE-FG02-96ER40983, DE-AC05-00OR22725, DE-FG02-96ER41006 and in part by the NNSA through DOE Cooperative Agreement DEFC03-03NA00143

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