

Abstract Submitted
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Beta-Decay Spectroscopy of Neutron-Rich Isotopes Utilizing a Planar Ge Double-Sided Strip Detector N. LARSON, S.N. LIDDICK, C.J. PROKOP, NSCL/MSU, F.G. KONDEV, S. KUMAR, ANL, B.P. CRIDER, S.V. PAULAUSKAS, NSCL, S. SUCHYTA, UC Berkeley — In nuclear science, rapid changes in the structure of the atomic nucleus have been inferred with small changes in the neutron and proton numbers. These changes are manifested in variations of the low-energy level schemes of exotic isotopes. One region of the nuclear chart where rapid changes in deformation have been suggested based on the behavior of the first excited $2+$ states is in neutron-rich nuclei near $A=110$. Beta-decay spectroscopy is a sensitive and selective technique that can be used to investigate the low-energy level schemes exotic nuclei at low production rates. At the National Superconducting Cyclotron Laboratory (NSCL), a recently commissioned planar Ge double-sided strip detector (GeDSSD) is used in a novel application for these studies. Preliminary results from the decay of Tc isotopes in an experiment aimed at nuclei near $A=110$ will be presented. This work was supported by the DOE NNSA DE-NA0000979 and the NSF Grant PHY1102511.

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