Abstract Submitted
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Spectroscopy of ^{86,87,88}Se levels populated through beta decay of ^{86,87,88}As[1] J. PEREIRA, NSCL, Michigan State University, MI, US, W.B. WALTERS, Department of Chemistry and Biochemistry, University of Maryland, MD, US, M.K. SMITH, A. APRAHAMIAN, Department of Physics, University of Notre Dame, IN, US, C.J. CHIARA, ANL, IL, US, A. GADE, T. GINTER, NSCL, Michigan State University, MI, US, G. HACKMAN, TRIUMF, BC, Canada, N. LARSON, S.N. LIDDICK, C. PROKOP, H. SCHATZ, O.B. TARASOV, NSCL, Michigan State University, MI, US — The overabundances of Sr, Y and Zr elements observed in some r-process-enriched, metal-poor stars complicate the quest for the r-process site. Jones et al.[Phys. Rev. C73, (2006)] reported an anomalously high 886-keV E(2+) in $^{88}Se_{54}$, which may be related to a doubly-magic $^{90}Se_{56}$. This new waiting point might explain the Sr, Y, Zr overabundances. A new experiment was carried out at NSCL to measure the structure of neutron-rich Se isotopes. New spectroscopic information of ^{86,87,88}Se has been obtained through the beta decay of ^{86,87,88}As nuclei. A gamma ray at 93 keV has been observed in the decay of ^{87}As that could arise from the transition $5/2^+$ to $3/2^+$, as observed in the higher-Z N = 53 isotones. A gamma-ray transition at 651 keV has been observed in the decay of ^{88}As that could be a part of the yrast cascade in ^{88}Se. The 886 keV gamma-ray observed by Jones et al. could not be verified.

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