Abstract Submitted
for the NWS12 Meeting of
The American Physical Society

Conversion-Electron Spectroscopy of ^{116}Sn via the β-decay of ^{116}In[1] DAVID CROSS, CORINA ANDREOIU, JENNIFER PORE, Simon Fraser University, G.C. BALL, TRIUMF, V. BILDSTEIN, University of Guelph, A. CHESTER, Simon Fraser University, R. CHURCHMAN, TRIUMF, G.A. DEMAND, A. DIAZ VARELA, R. DUNLOP, University of Guelph, A.B. GARNSWORTHY, TRIUMF, P.E. GARRETT, B. HADINIA, University of Guelph, G. HACKMAN, TRIUMF, B. JIGMEDDORJ, University of Guelph, R. KANUNGO, St. Mary's University, A.T. LAFFOLEY, A. LIBLONG, University of Guelph, B. NOAKES, Simon Fraser University, C.E. SVENSSON, University of Guelph, P. VOSS, Z.-M. WANG, Simon Fraser University, J.M. WILSON, University of Guelph, J.L. WOOD, Georgia Institute of Technology, S. YATES, University of Kentucky
— Motivated by a study of the prevalence of shape coexistence and collectivity in nuclei at closed shells [1], we have revisited the ^{116}Sn (Z=50; N=66) nucleus, known to exhibit these characteristics [2], using a ^{116}In beam produced via the ISOL technique at TRIUMF. The beta decay of ^{116}In to ^{116}Sn has been measured using the 8π spectrometer and its suite of ancillary detectors. In this presentation we focus on the conversion-electron coincidence spectroscopy of the ^{116}Sn nucleus, in order to augment and improve the existing knowledge of its structure via the high-statistics spectroscopic data obtained in our experiment. In particular, re-measurements of internal conversion coefficients will be discussed as they pertain to the possibility of mixing of different shapes between bands in ^{116}Sn. [1] K. Heyde and J.L. Wood, Rev. Mod. Phys. 83, 1467 (2011). [2] S. Raman et al., Phys. Rev. C 43 521 (1991)

[1]This work was supported by the Natural Sciences and Engineering Research Council of Canada

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Date submitted: 17 Sep 2012 Electronic form version 1.4