Abstract Submitted
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Mixing Ratios of Transitions in ^{116}Sn[1] DAVID CROSS, J. PORE, C. ANDREOIU, A. S. CHESTER, P. VOSS, Simon Fraser University, V. BILDSTEIN, G. A. DEMAND, A. DIAZ VARELA, R. DUNLOP, P. E. GARRETT, B. HADINIA, B. JIGMEDDORJ, A. LAFFOLEY, A. LIBLONG, C. SVENSSON, University of Guelph, G. C. BALL, P. C. BENDER, A. GARNSWORTHY, G. HACKMAN, D. MILLER, B. NOAKES, Z-M. WANG, TRIUMF, R. KANUNGO, St. Mary's University, J. L. WOOD, Georgia Institute of Technology, S. W. YATES, University of Kentucky — The β decay of ^{116m1,g}In to ^{116}Sn, observed at TRIUMF-ISAC utilizing the 8π array of 20 HPGe detectors augmented with 5 Si(Li) detectors, produced a high statistics data set from which E2/M1 mixing ratios from $\gamma\gamma$ angular correlations were obtained. Several new mixing ratios of transitions among the $I^\pi = 4^+$ states were measured for the first time. In addition, the E0 component of the $4_2^+ \rightarrow 4_1^+$ transition was determined. Previous analyses of ^{116}Sn have explained the nature and mixing of the 4^+ states on the basis of shared phonon strength [1,2]. The results presented here indicate that models of ^{116}Sn should explore alternative interpretations of their character. This observation has implications for ongoing theoretical and experimental research on ^{116}Sn and neighboring tin isotopes. [1] H. Wienke *et al.*, Nucl. Phys. A 405, 237 (1983) [2] S. Raman *et al.*, Phys. Rev. C 43, 521 (1991)

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David Cross
Simon Fraser University

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