

Abstract Submitted
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Elucidation of complex decay schemes using on-line mass separated sources and a large array of Compton-suppressed germanium detectors¹ N. BROWN, J.L. WOOD, W.D. KULP, D. FURSE, Georgia Institute of Technology, G.A. DEMAND, P.E. GARRETT, K.L. GREEN, G.F. GRINYER, K.G. LEACH, A.A. PHILLIPS, M.A. SCHUMAKER, C.E. SVENSSON, J. WONG, University of Guelph, G.C. BALL, D.S. BANDYOPADHYAY, G. HACKMAN, A.C. MORTON, C.J. PEARSON, TRIUMF, R.A.E. AUSTIN, S. COLOSIMO, St Mary's University, S.W. YATES, University of Kentucky, D. CROSS, Simon Fraser University, THE 8 PI COLLABORATION — Complex decay scheme construction using beta decay of isotopes produced by spallation and mass separation on-line at TRIUMF-ISAC and studied with the 8π array of 20 Compton-suppressed germanium detectors is described. Results from the analysis of the $^{160}\text{Yb} \rightarrow ^{160}\text{Tm}$ decay will be presented. Emphasis will be placed on the sensitivity to weak decay branches, assignment of γ -ray lines to isobars, and the use of conversion electron coincidences to observe low-energy transitions. The goal of this work is to achieve detailed decay scheme spectroscopy far from stability with the same level of detail as obtained with the 8π array near stability in earlier $N = 90$ studies [1] [2].

[1] W.D. Kulp et al., Phys. Rev. C 69, 064309 (2004).

[2] W.D. Kulp et al., Phys. Rev. C 76, 034319 (2007).

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