Abstract Submitted
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Total Absorption Spectroscopy of 85Se, 85Br K.C. GOETZ, UTK, R.K. GRZYWACZ, UTK/ORNL, K.P. RYKACZEWSKI, ORNL, M. KARNY, UW/ORNL, A. FIALKOWSKA, M. WOLIŃSKA-CICHOCKA, UW, B.C. RASCO, E.F. ZGANJAR, LSU, J.W. JOHNSON, C.J. GROSS, ORNL — Two experimental campaigns utilizing the Modular Total Absorption Spectrometer (MTAS) were conducted at the HRIBF facility in January of 2012 and March 2015. The cases of 85Se and 85Br will be discussed in concert with shell model predictions. 85Se is a Z=34, N=51 nucleus, therefore its decay properties are determined by interplay between first forbidden decays of valence neutrons and Gamow-Teller decay of 78Ni core. Analysis of the 85Se and 85Br data indicate a significant modification of the beta strength function when compared with previous measurements for both nuclei, see ref [1].

[1] Zendel et al, J. inorg, nucl. Chem. Vol.42, pp. 1387-1395 Pergamon Press Ltd., 1980.

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