

Abstract Submitted  
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**Measurement of the  $\gamma$  branches in the  $\beta^+$  decay of  $^{32}\text{Cl}$**  DAN MELCONIAN, C. BORDEANU, A. GARCÍA, University of Washington, J.C. HARDY, V.E. IACOB, N. NICA, H.I. PARK, G. TABACARU, L. TRACHE, Texas A & M University, S. TRIAMBAK, University of Washington, R.E. TRIBBLE, Y. ZHAI, Texas A & M University — As discussed in the previous talk (A. García, et al.), one of the dominant systematic uncertainties in the measurement of the  $ft$  value of  $^{32}\text{Ar}$  arises from the uncertainty in the HPGe  $\gamma$  efficiency. The  $\gamma$ s emitted in the decay of  $^{32}\text{Cl}$  cover the same range of energies and, since  $\approx 10\%$  of the time it is a daughter product of  $^{32}\text{Ar}$ , a precise knowledge of these branches will provide us with an *in situ* calibration of our HPGe detectors. This talk will describe the experiment and results of the measurement performed at the Texas A & M Cyclotron Institute. We have identified a number of new branches and determined the  $\gamma$  yields to  $< 0.3\%$ , generally an order of magnitude improvement from previous results. Implications for the  $^{32}\text{Ar}$  experiment will be discussed.

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