

Abstract Submitted
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Precision measurements in ^{20}F beta decay¹ MAXIMILIAN HUGHES, OSCAR NAVILIAT-CUNCIC, Michigan State Univ, PAUL VOYTAS, ELIZABETH GEORGE, Wittenberg University, STAN PAULASKAS, University of Tennessee Knoxville, XUEYING HUYAN, Michigan State Univ — Precision measurements of the shape of the beta particle energy spectrum provide a sensitive window to search for new interactions beyond the standard model. The decay of ^{20}F offers an attractive system due to the simple decay scheme for a coincidence measurement. A beam of ^{20}F ions, produced at the National Superconducting Cyclotron Laboratory, was implanted into a beta-detector. A gamma-ray detection system surrounded the beta detector to detect the beta-delayed gammas in coincidence to reduce the background. Preliminary analysis of these data focus on the half-life of ^{20}F due to the statistical inconsistency of previous work. Monte Carlo simulations are ongoing to analyze the shape of the beta energy spectrum. Results of the analysis of the half-life will be presented.

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