

Abstract Submitted
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Development of an improved active gas target design for ANASEN¹ SABINA SCHILL, Westminster College, J.C. BLACKMON, C.M. DEIBEL, K.T. MACON, B.C. RASCO, Louisiana State University, I. WIEDENHOEVER, Florida State University — The Array for Nuclear Astrophysics and Structure with Exotic Nuclei (ANASEN) is a charged particle detector array with an active gas target-detector capability for sensitive measurements using radioactive ion beams. One of the main goals is to improve our understanding of nuclear reactions important in stellar explosions. Following initial experimental campaigns with ANASEN, we have been developing an improved active gas target design for ANASEN that incorporates an innovative cylindrical gas ionization detector for heavy ions surrounding the beam axis inside of the other ANASEN charged particle detectors. The detection of heavy ions in coincidence with lighter ions in a redesigned proportional counter will provide greater discriminating power. The new active gas target design will be presented, and its simulated performance will be compared with test data.

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