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The Array for Nuclear Astrophysics Studies with Exotic Nuclei¹ L.E. LINHARDT, J.C. BLACKMON, M. MATOS, L.L. MONDELLO, E.F. ZGAN-JAR, Louisiana State Univ., E. JOHNSON, G. ROGACHEV, I. WIEDENHOVER, Florida State Univ., LOUISIANA STATE UNIV. TEAM, FLORIDA STATE UNIV. TEAM — The Array for Nuclear Astrophysics Studies with Exotic Nuclei (ANASEN) is a charged-particle detector array that is targeted primarily towards reaction studies with radioactive ion beams at FSU and the NSCL. ANASEN consists of 40 double-sided silicon-strip detectors backed with CsI scintillators and an innovative gas counter design that allows operation in a gas target/detector mode and experiments covering a broad range of center-of-mass energies simultaneously. Electronics based on ASIC components are being implemented to achieve a high channel count at low cost. Prototypes of all the detector components have been fabricated and are currently being tested. Performance of the individual components and plans for the first experiments that aim to improve our knowledge of the nuclear reactions important in stellar explosions will be reported.

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