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Moving towards first science with the St. George recoil separator¹ ZACHARY MEISEL, G.P.A. BERG, G. GILARDY, M. MORAN, University of Notre Dame, J. SCHMITT, Clemson University, C. SEYMOUR, E. STECH, M. COUDER, University of Notre Dame — The St. George recoil mass separator has recently been coupled to the 5MV St. Ana accelerator at the University of Notre Dame's Nuclear Science Lab. St. George is a unique tool designed to measure radiative alpha-capture reactions for nuclei up to A=40 in inverse kinematics in order to directly obtain cross sections required for astrophysical models of stellar and explosive helium burning. Commissioning of St. George is presently taking place with primary beams of hydrogen, helium, and oxygen. In this presentation, results will be shown for the measured energy acceptance of St. George, which compare favorably to COSY results when employing the calculated optimal ionoptical settings. Additionally, future plans will be discussed, such as assessing the angular acceptance of St. George and the re-integration of HiPPO at the separator target position to provide a dense, windowless helium gas-jet target.

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