

Abstract Submitted
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Improved Focal Plane at SASSYER RYAN WINKLER, A. HEINZ, J. QIAN, H. AI, R.F. CASTEN, E. NOVITSKI, E.A. MCCUTCHAN, D.A. MEYER, V. WERNER, E. WILLIAMS, Yale University, R.B. CAKIRLI, Istanbul University and Yale University, C.R. FITZPATRICK, University of Surrey, UK and Yale University, G. GÜRDAL, Clark University and Yale University, C. BEAUSANG, B. CRIDER, R. RAABE, University of Richmond — The gas-filled recoil separator SASSYER (Small Angle Separator System at Yale for Evaporation Residues) is designed for the investigation of heavy evaporation residues produced in weak reaction channels. The detection systems around the target position as well as the focal plane are undergoing improvement. Until now, a solar cell array with 30 1x1 cm² detectors was used for the detection of recoils and served, together with several germanium detectors, as a setup for isomer-decay tagging (IDT). The redesigned focal plane will consist of a Parallel Grid Avalanche Counter (PGAC) that will be used in transmission together with two 6x4 cm² Double-sided Silicon Strip Detectors (DSSDs) with a 1 mm pitch covering the entire focal plane. A dedicated vacuum chamber allows for the positioning of clover detectors in close geometry. Here recoil-decay tagging, isomer-decay tagging and alpha-gamma coincidence measurements can be performed. The setup and first experimental results will be presented. This work has been supported by US DOE grants DE-FG02-91ER-40609, DE-FG02-88ER-40417, DE-FG03-03NA-00081, DE-FG02-05ER-41379, and DE-FG52-05NA-25929.

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