Entry-Level Spin Distributions of Sm Isotopes from the (p,t) Reaction at 25 MeV using Hyperion and STARLiTeR[1] N. COOPER, P. HUMBY, C.W. BEAUSANG, E. WILSON, University of Richmond, R.O. HUGHES, S. OTA, J. KOGLIN, R.J. CASPERSON, J. BURKE, LLNL, A. SIMON, C. REINGOLD, University of Notre Dame, M. MCCLESKEY, E. MCCLESKEY, A. SAASTAMOINEN, R. CHYZH, M. DAG, Texas AM Universsity, HYPERION COLLABORATION — The surrogate method has proven to be a useful tool in determining neutron capture cross sections. However, differences in level properties populated in these experimental studies, which are currently being performed near stability, may have an impact on extracted cross sections. This talk will focus on an experiment performed at the Texas A&M Cyclotron Institute with the Hyperion Si telescope and HPGe detector array. Outgoing particles were detected following the reaction of 25 MeV protons incident on an enriched ^{150}Sm target. Results from recently developed codes to extract the entry-level spin distributions from experimental data as well as predict this distribution will be presented for ^{148}Sm as well as ^{150,152}Sm using past experimental data from STARLiteR.

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