

Abstract Submitted
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Measurement of the low-lying excitations in ^{96}Mo by the ^{95}Mo (d,p) reaction¹ SHUYA OTA, Japan Atomic Energy Agency / Rutgers University, JOLIE A. CIZEWSKI, ANDREW RATKIEWICZ, SEAN BURCHER, BRETT MANNING, SAMANTHA L. RICE, CALLUM SHAND, Rutgers University, JASON T. BURKE, ROBERT J. CASPERSON, NICHOLAS SCIELZO, Lawrence Livermore National Laboratory, ROBI A.E. AUSTIN, St. Mary's University, CON BEAUSANG, RICHARD O. HUGHES, TIMOTHY J. ROSS, University of Richmond, MATT MCCLESKEY, Texas A&M University, WILLIAM A. PETERS, Oak Ridge Associated University — The $^{95}\text{Mo}(\text{d,p})$ reaction was studied at the 88-Inch Cyclotron at Texas A&M University with a 13-MeV (6.5 MeV/nucleon) deuteron beam and a self-supporting foil of 0.96 mg/cm² ^{95}Mo target. The reaction protons were measured at forward angles of 30-60° with the STARS (Silicon Telescope Array for Reaction Studies) array of three segmented Micron S2 silicon detectors. This is the first study of the $^{95}\text{Mo}(\text{d,p})$ reaction and is part of the effort to validate the (d,p γ) reaction as a surrogate for neutron capture. Preliminary angular distribution results and a comparison with distorted wave calculations will be presented.

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