

Abstract Submitted
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Techniques for (d,p γ) Measurements at the HRIBF¹ M.S. JOHNSON, A. KRONENBERG, ORAU, Oak Ridge, TN, D.W. BARDAYAN, J.C. BLACKMON, C.D. NESARAJA, M.S. SMITH, ORNL, Oak Ridge, TN, J.A. CIZEWSKI, K.L. JONES, S.D. PAIN, J.S. THOMAS, Rutgers Univ., New Brunswick, NJ, J.A. HOWARD, R.L. KOZUB, Tennessee Tech., Cookeville, TN, D.W. VISSER, UNC, Chapel Hill, NC — Neutron transfer measurements on exotic nuclei are important for astrophysics and nuclear structure. Such reactions provide information such as excitation energy, angular momentum and spectroscopic strength for neutron single-particle states. Using inverse kinematics for (d,p) reactions enables measurements to be made on neutron-rich nuclei which are too short-lived to make into targets. Studies of neutron-rich nuclei are important for understanding the astrophysical *r*-process path. We are developing techniques to include γ -ray measurements in coincidence with proton detection. This approach offers many benefits over standard (d,p) reaction. Techniques for (d,p γ) reactions in inverse kinematics will be presented.

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