Abstract Submitted for the DNP12 Meeting of The American Physical Society

Identification of Fission Products using the large-acceptance VAMOS spectrometer¹ BRENT GLASSMAN, James Madison University, GIACOMO DE ANGELIS, JOSE JAVIER VALIENTE-DOBÓN, LNL/INFN, LNL/INFN COLLABORATION — The region of neutron rich Osmium isotopes exhibits a variety of nuclear phenomena such as K-isomeric states, triaxiality, and shape transitions across isotopic and isotonic chains. These phenomena have been considered highly important in demonstrating the accuracy of nuclear models and have been a considerable focus for both theoretical and experimental endeavor. Until recently knowledge in this region has been lacking due to the difficulty in populating these nuclei. An experiment has been performed in Ganil, France, using the EXOGAM-VAMOS setup, in order to study the prolate-oblate transition in neutron rich Os isotopes. In order to populate these nuclei a multi-nucleon transfer reaction was exploited, using a 1622MeV beam of ²⁰⁸Pb impinging on a 3mg/cm² self-supporting ¹⁹⁸Pt target. Along with transfer channels, fission fragments were also detected. The current status of the investigation of these fission fragments will be discussed.

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