Abstract Submitted
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Tests of Multi-Nucleon Transfer Models Using Gamma-Ray Spectroscopy[1] KYLE MCCALEB, RICARDO YANEZ, WALTER LOVELAND, Oregon State Umiversity, OSU-ANL-BNL-ANU-UMD COLLABORATION — It has been suggested that multi-nucleon transfer (MNT) reactions can be effective tools in synthesizing N=126 and n-rich heavy nuclei. We are engaged in a program to measure the yields of projectile-like fragments (PLFs) and target-like fragments (TLFs) in the interaction of 450 MeV ^{136}Xe with ^{208}Pb, 860 MeV ^{136}Xe with ^{198}Pt, and 1360 and 1700 MeV ^{204}Hg with ^{208}Pb. The use of in-beam, out of beam and post irradiation γ-ray spectroscopy using Gammasphere and single Ge detectors. We compare our results to the predictions of Zagrebaev and Greiner and semi-classical models such as GRAZING-F. We find the predictions of the GRAZING-F model represent, at best, the yields of the $\Delta Z=\pm$ 0,1,2 products while the Z-G predictions do a much better job of representing the yields of the large transfers.

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