

Abstract Submitted
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Neutron-Rich Isotopes from 208Pb at 86 MeV/u O.B. TARASOV, M. PORTILLO, A.M. AMTHOR, T. BAUMANN, D. BAZIN, C. FOLDEN, T. GINTER, M. HAUSMANN, D.J. MORRISSEY, J. PEREIRA, B.M. SHERRILL, M. THOENNESSEN, NSCL / MSU, C. NOCIFORO, GSI, Germany — An experiment to measure production yields from a beam of ^{208}Pb (86 MeV/u) on Be and Ni-targets has recently been performed. The A1900 fragment-separator [1] was used to analyze products from projectile fragmentation and abrasion-fission [2]. Isotopic identification of nuclides having $A \sim 200$ has been achieved, demonstrating that adequate A, Z, Q resolution at this energy region is possible when using silicon detectors. The verification of PID is done via detection of multiple charge state distributions of the primary beam, as well as γ -decay of known isomers with half-lives in the microsecond range. The results demonstrate that experiments with heavy nuclei are possible at the NSCL using beams of $A > 200$. Production cross-sections have been extracted from the data that can help improve the accuracy of production models such as Abrasion-Ablation and Abrasion-Fission used in the LISE++ code [3]. The data reveal the existence of previously unreported isomeric transitions and further analysis is ongoing that may also lead to the observation of new isotopes. References: [1] D.J.Morrissey et al., Nucl. Instrum. Meth. B204 (2003) 90–96. [2] O.B. Tarasov, Tech. Rep. MSUCL1300, NSCL, Michigan St.Univ., 2005. [3] O.B. Tarasov, D. Bazin, Nucl. Phys. A 746 (2004) 411; www.nscl.msu.edu/lise .

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