

Abstract Submitted  
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**Multi-nucleon transfer reactions—A detailed re-examination<sup>1</sup>**

WALTER LOVELAND, VISHAL DESAI, Oregon State Univ — We report the results of a study of multi-nucleon transfer in the reactions of 760 MeV  $^{136}\text{Xe}$  with  $^{198}\text{Pt}$  and 977 and 1143 MeV  $^{204}\text{Hg} + ^{208}\text{Pb}$ . In the  $^{136}\text{Xe} + ^{198}\text{Pt}$  reaction, the Improved Quantum Molecular Dynamics model does an excellent job of describing our results while the predictions of the GRAZING-F and DNS models do not agree with our measurements. In the symmetric  $^{204}\text{Hg} + ^{208}\text{Pb}$  reaction, none of the models (GRAZING, DNS, ImQMD) describe the measurements adequately. The implications of the model failures for symmetric multi-nucleon transfer reactions for the synthesis of the heaviest nuclei will be discussed.

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