

Abstract Submitted
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Influence of neutron excess on fusion hindrance in neutron-rich radioactive Sn induced reactions¹ J.F. LIANG, J.M. ALLMOND, C.J. GROSS, Z. KOHLEY, K. LARGERGREN, P.E. MUELLER, D. SHAPIRA, R.L. VARNER, Physics Division, Oak Ridge National Laboratory, A.L. CARALEY, Department of Physics, State University of New York at Oswego — Fusion enhancement has been observed in reactions induced by neutron-rich radioactive beams at energies near the Coulomb barrier. In heavier systems, fusion is hindered because of quasifission. Whether the hindrance will cancel out the enhancement brought by neutron-rich radioactive nuclei is an open question. We have measured evaporation residue cross sections for neutron-rich radioactive Sn on Ni targets to study the influence of neutron excess on the amalgamation process. A model independent comparison between $^{132}\text{Sn}+^{58}\text{Ni}$ and $^{126}\text{Sn}+^{64}\text{Ni}$ will be made. The isotope dependence of fusion hindrance in $^{124,126,127,128}\text{Sn}$ on ^{64}Ni will be examined.

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