Abstract Submitted for the DNP07 Meeting of The American Physical Society

Fusion of <sup>134</sup>Sn, <sup>134</sup>Sb and <sup>134</sup>Te with <sup>64</sup>Ni at near and subbarrier energies<sup>1</sup> DAN SHAPIRA, J.F. LIANG, C.J. GROSS, R.L. VARNER, J.R. BEENE, P.E. MUELLER, D.W. STRACENER, Physic Divsion, Oak Ridge National Lab, W. LOVELAND, Dept. of Chemistry, Oregon State Univ., J.J. KOLATA, H. AMRO, A. ROBERTS, Dept. of Physics & Astronomy University of Notre-Dame, K. GRZYWACZ-JONES, S. PADGETT, Dept. of Physics & Astronomy University of Tennessee, A.L. CARALEY, State University of New York at Oswego — Evaporation Residues (ER) from collisions of <sup>134</sup>Sn, <sup>134</sup>Sb and <sup>134</sup>Te ions with a <sup>64</sup>Ni target were measured at three beam energies (530, 500 and 480 MeV). The purpose of the experiment is to find out to what degree fusion near and below the Coulomb barrier is enhanced (or supressed) due to the presence of loosely bound valence neutrons in the collisions induced by the Sn and Sb isobars. The technique used to obtain cross sections for all three isobars and a comparison of ER yields in the three systems will be presented.

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