

Abstract Submitted  
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**Investigation of the Affect of a Coulomb Force on Velocity Distributions in Multifragmentation** L. HEILBORN, G. SOULIOTIS, S. SOISSON, P. CAMMARATA, P. MARINI, L.W. MAY, A. MCINTOSH, A. RAPHELT, B. STEIN, S. YENNELLO, Texas A&M University — The relationship between the N/Z of the fragmenting source and the nature of its subsequent fragmentation was studied in the reaction of  $^{32}\text{S}$  with  $^{112}\text{Sn}$  at 45 MeV/nucleon. Isotopically resolved Light Charged Particles (LCPs) Intermediate Mass Fragments (IMFs) were measured with the FAUST Array. The velocity distribution of  $^7\text{Li}$  was observed to be asymmetric and backward peaked in the frame of the moving quasiprojectile (QP). We observed a clear shift in the peak of the velocity distributions of the emitted towards the quasitarget (QT) as the particles of a given Z become more neutron-rich. In order to investigate the velocity distributions of the emitted fragments, a theoretical simulation consisting of Deep Inelastic Transfer followed by Statistical Multifragmentation for the system was run for different distances between the QP and the QT at the time of breakup. The proximity of the QP to the QT at the time of breakup in SMM does affect the distribution of fragments in the QP frame. However, the effect is diminished when an experimental filter is applied.

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