Abstract Submitted
for the DNP15 Meeting of
The American Physical Society

Rate of N-Z equilibration in a deformed nuclear system ANDREA JEDELE, A.B. MCINTOSH, S.J. YENNELLO, Cyclotron Institute Texas A&M University — The symmetry energy in the nuclear equation of state is a driving force for neutron-proton equilibration. The extent of equilibration is governed by the contact time and the gradient of the potential driving the equilibration. We have examined correlations between the largest two fragments (both isotopically identified) produced in collisions of 70Zn+70Zn at 35A MeV. Using the rotation angle as a clock, we observe a large difference in the average n-p asymmetry at short times. As time increases, the asymmetries converge toward each other, providing strong evidence for N-Z equilibration within a dynamically deformed quasi-projectile.

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Date submitted: 30 Jun 2015 Electronic form version 1.4