

Abstract Submitted  
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**Constraining the Symmetry Energy Using Radioactive Ion Beams**<sup>1</sup> KRYSTIN STIEFEL, ZACHARY KOHLEY, DAVE MORRISSEY, MICHAEL THOENNESSEN, NSCL, Michigan State University, MONA COLLABORATION — Calculations from the constrained molecular dynamics (CoMD) model have shown that the N/Z ratio of the residue fragments and neutron emissions from projectile fragmentation reactions is sensitive to the form of the symmetry energy, a term in the nuclear equation of state. In order to constrain the symmetry energy using the N/Z ratio observable, an experiment was performed using the MoNA-LISA and Sweeper magnet arrangement at the NSCL. Beams of  $^{30}\text{S}$  and  $^{40}\text{S}$  impinged on  $^9\text{Be}$  targets and the heavy residue fragments were measured in coincidence with fast neutrons. Comparison of the new experimental data with theoretical models should provide a constraint on the form of the symmetry energy. Some of the data from this experiment will be presented and discussed.

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