

Abstract Submitted
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Search for angular anisotropies in neutron emissions of fragmentation reactions with secondary beams¹ SAM NOVARIO, NSCL/University of Notre Dame, GREG CHRISTIAN, JENNA SMITH, MICHAEL THOENNESSEN, NSCL/MSU, MONA COLLABORATION — Projectile fragments from the breakup of a secondary beam of ^{29}Na were measured in coincidence with neutrons expelled in the reaction. A 140 MeV/u ^{48}Ca beam from the Coupled Cyclotron Facility at Michigan State University was used to produce the secondary ^{29}Na beam at an energy of 102 MeV/u. This beam impinged on a 987 mg/cm² ^9Be target and the outgoing fragments were deflected by a superconducting 4 T large-gap dipole magnet and analyzed with a set of energy-loss, timing and position sensitive detectors while the outgoing neutrons were measured with the Modular Neutron Array MoNA. The central purpose of the experiment was to study individual neutron unbound resonances in the fragments. In addition, the analysis of the continuum distributions offers the opportunity to investigate reaction dynamical effects. For example, the neutron multiplicity can yield information about the distribution of the initially produced fragments. Also, the angular distributions of the emitted neutrons relative to the fragments may contain information about the fragmentation process. We searched for anisotropies in these angular distributions for several isotopes from $Z = 5$ through $Z = 10$ fragments. Initial results will be presented.

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