

Abstract Submitted
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Charged Particle Identification for Prefragmentation Studies¹

JONATHAN HU, Gettysburg College, MONA COLLABORATION — Projectile fragmentation refers to high energy (≥ 50 MeV/u) heavy ion beams on production targets to generate intermediate mass and target fragments at facilities like the NSCL, FRIB, GSI, GANIL and RIKEN. The resulting secondary beams can then be isolated by fragment separators like the NSCL's A1900 and that secondary beam then used on reaction targets for a variety of experiments. Predictions of beam intensities for experiment planning depend on models and data. The MoNA Collaboration performed an experiment at the NSCL in which a ^{48}Ca primary beam was used with a ^9Be target to produce a ^{32}Mg secondary beam with energy 86 MeV/u that was incident on a second target of ^9Be . By characterizing the energy distributions of final fragments of neon, sodium, and fluorine in coincidence with neutrons created both by prefragmentation processes and reaction mechanisms, we are able to extract information about prefragmentation dynamics. The identification of charged fragments is a multi-step process crucial to this analysis.

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Sharon Stephenson
Gettysburg College

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