

Abstract Submitted
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Impact Parameter Characterization, Reaction Plane Determination, and Flow Analysis of 35 MeV/u $^{70}\text{Zn}+^{70}\text{Zn}$, $^{64}\text{Zn}+^{64}\text{Zn}$, $^{64}\text{Ni}+^{64}\text{Ni}$ Z.
KOHLEY, L. MAY, S. WUENSCHHEL, B.C. STEIN, R. TRIPATHI, S.N. SOISSON, G.A. SOULIOTIS, S.J. YENNELLO, Cyclotron Institute, Texas A&M University, NIMROD-ISIS COLLABORATION — The NIMROD-ISIS array was recently used for the collection of 35 MeV/u reaction systems consisting of $^{70}\text{Zn}+^{70}\text{Zn}$, $^{64}\text{Zn}+^{64}\text{Zn}$, $^{64}\text{Ni}+^{64}\text{Ni}$. The primary motivation for obtaining this data set was to examine the flow of isotopically identified fragments. In order to complete the flow analysis, an estimation of the impact parameter and reaction plane was completed. The impact parameter characterization was obtained through the binning of experimental distributions of global variables. The AMD (Antisymmetrized Molecular Dynamics) model coupled with Gemini was utilized to investigate the accuracy of the impact parameter characterization. In particular, combining the transverse energy of Z=1-2 fragments and the neutron multiplicity, both with equal weighting, provided reasonable impact parameter determination. Similarly, a comparison of different reaction plane determination methods will be shown demonstrating the accuracy of each calculation. Lastly, initial collective flow measurements of isotopically resolved light fragments will be presented from both experimental data and theoretical simulations.

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