

Abstract Submitted
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Characterizing NZ equilibration in dynamically deformed system at 15, 25, 35 and 45 MeV/nucleon ANDREA JEDELE, Cyclotron Institute Texas AM University — Neutron-proton equilibration is sensitive to the asymmetry energy in the nuclear equation of state. The process is governed by the contact time between the colliding nuclei and the gradient of the potential driving the equilibration. Recent work has shown NZ equilibration between the two largest fragments originating from the excited projectile-like fragment (PLF*) follows first-order kinetics in ^{70}Zn , ^{64}Zn and ^{64}Ni symmetric reaction systems at 35 MeV/nucleon. The rate constant extracted was 3 zs^{-1} , corresponding to a mean equilibration lifetime of 0.3 zs. An experiment has been proposed to examine the characteristics of NZ equilibration in $^{40}\text{Ca}+^{64,70}\text{Zn}$ at 15, 25, 35 and 45 MeV/nucleon with the NIMROD array.

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