

A Comparative Study of Nuclei/Hyper Nuclei Formation Phenomena in Heavy Ion Collisions

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In this study, we present recent results of our theoretical analyses by comparing them with existing experimental data in the literature. Starting from the initial baryon production, the clusterization of baryons to form unstable and exotic nuclei, then the decay of the fragments to the stable nuclei that can be measured in heavy ion collisions. Rapidity, kinetic energy spectra, excitation energies, mass and charge distributions are examined to understand the phenomena of nucleus formation. Applications of the models and methods will be also discussed as comparatively.

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