

Study of clusters and hypernuclei formation within PHQMD+FRIGA model at the NICA energies

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We report on the results on the dynamical modelling of cluster formation with the new combined PHQMD+FRIGA model at Nuclotron and NICA energies. The FRIGA clusterisation algorithm, which can be applied to the transport models, is based on the simulated annealing technique to obtain the most bound configuration of fragments and nucleons. The PHQMD+FRIGA model is able to predict isotope yields as well as hyper-nucleus production. Based on present predictions of the combined model we study the possibility to detect such clusters and hypernuclei in the BM@N and MPD/NICA detectors.

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