PROBING THE EFFECT OF DIFFERENT CROSS SECTIONS IN ASYMMETRIC SYSTEMS

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S u m m a r y

We present a complete systematic theoretical study of the multifragmentation for asymmetric colliding nuclei in heavy-ion reactions in the energy range between 50 and 1000 MeV/nucleon by using the isospin-dependent quantum molecular dynamics (IQMD) model. We have observed an interesting outcome for asymmetric colliding nuclei. The comparison between the symmetric and asymmetric colliding nuclei for the isospin-independent and isospin-dependent cross sections has been performed. We have found the pronounced effect of different cross sections and mass asymmetry on the nuclear reaction dynamics.