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Pecularities of formation of ternary fission fragments

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Formation mechanism of ternary fission fragments in the spontaneous ternary fission of 252Cf is described in the framework of trinuclear system model. It is shown that the fission barrier dynamically changes during the evolution of trinuclear system and during the motion of third nucleus in the decay mode. Competition between binary fission and the formation of a trinuclear system, which is responsible for the ratio of spontaneous ternary and binary fission yields, is introduced.

The Coulomb break-up of the dinuclear system in isomeric state in the field of third nucleus(foil), observed in the experiments at FLNR JINR, is explained. The very important (and very needed) role of experiments on ternary fission in understanding the nuclear decay modes and for further developments of theory is noted.

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