

Analysis of some modes of multibody decays of low excited actinide nuclei.

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In our previous publications devoted to the collinear cluster tri-partition (CCT) of the low excited nuclei [1-3] we have paid attention to specific linear structures in two-dimensional mass distributions of fission fragments (FFs). Just such structures always linked with magic clusters and located in the region of an essential missing mass are treated as the manifestations of multibody decay. A lot of different CCT modes (structures) were observed so far [3]. Physical scenario standing behind each mode is a subject of much current interest. We present the results of analysis of the most pronounced CCT modes. Very nontrivial pre-scission configurations likely give rise to some of the modes observed. References 1. Yu. V. Pyatkov et al., Eur. Phys. J. A 45 (2010) 29 2. Yu. V. Pyatkov et al., Eur. Phys. J. A 48 (2012) 94 3. D.V. Kamanin, Yu. V. Pyatkov, "Clusters in Nuclei - Vol.3" ed. by C. Beck, Lecture Notes in Physics 875, pp. 183-246 (2013)

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