

NEW MODES OF COLLINEAR CLUSTER TRI-PARTITION OF $^{252}\text{Cf}(\text{sf})$

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In our previous publications [1–4] we discussed various manifestations of a new decay channel of the low excited heavy nuclei called collinear cluster tri-partition (CCT). In the frame of the essentially modified experimental method, additional linear structures corresponding to the relations $M_1 + M_2 = \text{const}$ and $M_1 - M_2 = \text{const}$ for the masses M_1 and M_2 of the fission fragments (FFs) from $^{252}\text{Cf}(\text{sf})$ detected in the opposite spectrometer arms form the rhombic-like configurations with the vertices corresponding to the magic nuclei. The structures are statistically reliable, they are conditioned by a pronounced and complex correlation between the masses of the FFs measured independently. Possible physical scenario standing behind the structures are discussed.

The speaker is a student or young scientist

No

Section

1. Experimental and theoretical studies of nuclear reactions

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