

SEARCHING FOR NEW LONG LIVED ISOMERS IN THERMAL FISSION OF ^{235}U

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Shape isomers in the fissioning nuclei (fissioning isomers) are known to be due to the metastable energy states in the second minimum of the fission barrier of some heavy nuclei. Shape isomeric states of the different nature namely nuclear quasi-molecular states forming at the descent from the barrier and leading to the ternary fission were predicted in [1]. The life time of such states depend from the constituents involved and can exceed some msec. We are searching for the isomeric states predicted in the experiment at the IBR-2 impulse reactor. The preliminary results obtained will be reported.

1. D.N.Poenaru *et al.* // J. Phys. G: Nucl. Part. Phys. 2000. V.26. P.L97.