SEMINAR

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(13:00, seminar room N.295, FÚ SAV)

Population of strongly deformed nuclear states within cluster approach

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Abstrakt: Using the cluster model, the population of the yrast super-deformed states of ^{152}Dy nucleus treated as di-nuclear configuration is described. The excitation functions for the production of the super-deformed states in the different asymmetric and almost symmetric reactions are calculated and analyzed.

The dependencies of the relative intensities of E2-transitions between the rotational states of super-deformed band of ^{152}Dy on de-excitation channels, charge asymmetry of the entrance channel, and beam energy are established. The calculated results are compared with the available experimental data. Using the same approach, we analyze the possible formation and experimental observation of hyper-deformed states in the entrance channel of heavy ion reactions.

57	58	59	60	61	62	63	64	65	66	67	68	69	70
La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb
138.91	140.12	140.91	144.24	[144.91]	150.36	151.96	157.25	158.93	162.50	164.93	167.26	168.93	173.05