

**THE EXCITATION FUNCTIONS AND ISOMERIC CROSS SECTION RATIOS FOR
REACTIONS $^{84,86,87}\text{Sr}(^{6,4}\text{He},n,2n)^{89m,g}\text{Zr}$**

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Earlier isomeric cross section ratios of the reactions $^{86,87}\text{Sr}(\alpha,n,2n)^{89m,g}\text{Zr}$ were investigated up to $E = 13\text{-}29$ MeV [1]. In this work the experimental values of isomeric cross section ratios of these reactions are more specified. $\sigma(g)9/2^+/\sigma(m)1/2^-$ for $^{89}\text{Zr}(T_{1/2}(g) = 3.27$ d, $T_{1/2}(m) = 4.18$ min) are calculated by code EMPIRE 2.18 [2]. The calculations of the excitation functions and isomeric cross section ratios of the reaction $^{84}\text{Sr}(^{6}\text{He},n)^{89m,g}\text{Zr}$ are performed for the first time. It is interesting to compare the results of the calculated isomeric cross section ratios in the different nuclear reactions. The results are in a good agreement with the experimental data for alpha-particles induced reactions.

[1] V. D. Avchuhov *et al.*, *Izv. Akad. Nauk Ser. Fiz.* **44**, 155 (1980).

[2] M. Herman, to be published.