

INTERACTION OF FAST NEUTRON WITH ^{89}Y NUCLEI

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The analysis of experimental data on total cross sections, cross sections of elastic and inelastic scattering of neutrons by nuclei ^{89}Y in 0,2 - 22 MeV energy range has been done. The experimental data were analyzed within the framework of the optical-statistical approach, based on the spherical optical model, model of the coupled channels, model of excited core and modern variants of statistical model. It is shown that adequate description of this set of experimental data is possible within this approach only at use of the individual set of optical potential parameters. The conclusions about mechanisms of fast neutron scattering by nuclei ^{89}Y in broad energy range were made from the adequate theoretical description of set of experimental data.