

NEUTRON SCATTERING ANALYSIS BY LIGHT NUCLEI USING COUPLED CHANNEL OPTICAL MODEL

Wednesday, 13 July 2022 10:00 (20 minutes)

At present, an optical-model analysis of the scattering of nucleons by light nuclei, which have a cluster structure and collective states, is used.

We have calculated the cross sections of fast neutron scattering on even-even nuclei of 1p shell using rotational variants of CCOM. Nuclei with an unfilled 1p-shell are deformed and have a non-uniform nucleon distribution density.

The cross sections of elastic and inelastic scattering of neutrons by even isotopes of helium, beryllium, carbon, and oxygen with the excitation of rotational states of these nuclei were calculated.

The speaker is a student or young scientist

No

Section

1. Experimental and theoretical studies of nuclear reactions

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