

Preliminary data of the experiment to determine the cluster structure of the excited states of the ${}^6\text{Li}$

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A test experiment to determine the cluster structure of the excited states of the ${}^6\text{Li}$ nucleus in the $n + {}^6\text{Li}$ reaction with registration of charged particles and neutrons in coincidence was carried out on the RADEX neutron channel of INR RAS. Charged particles were registered by a telescope of silicon ΔE -E detectors at an angle of 50° in a small vacuum scattering chamber with a mounted ${}^6\text{Li}_2\text{CO}_3$ target [1]. Neutrons were registered by three scintillation detectors at an angle of 80° on the other side of the beam axis. Preliminary data on the energy spectra of neutrons and charged particles have been obtained. The obtained data make it possible to estimate the beam time required to obtain statistically reliable data for studying the cluster structure of highly excited states of the ${}^6\text{Li}$ nucleus.

1. A. Kasparov, M. Mordovskoy, V. Mitcuk, A. Afonin // "Nucleus-2021", Book of Abstracts, 89 (2021).

The speaker is a student or young scientist

No

Section

1. Experimental and theoretical studies of nuclear reactions

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