

## Observation of positive parity wave in low energy spectrum of ${}^7\text{He}$

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The  ${}^7\text{He}$  nucleus was studied using the  ${}^6\text{He}(d, p){}^7\text{He}$  reaction in inverse kinematics at 29A·MeV  ${}^6\text{He}$  beam delivered by the ACCULINNA-2 fragment separator (FLNR, JINR). The registration of neutrons from  ${}^7\text{He} \rightarrow n + {}^6\text{He}$  decay made it possible to derive the  ${}^7\text{He}$  ground state parameters, the decay energy of 0.38(2) MeV and width of 0.11(3) MeV. The forward-backward asymmetry in the neutron emission from unbound states of  ${}^7\text{He}$  has been found. That implies the presence of a positive parity wave in the  ${}^7\text{He}$  spectrum.

### Section

Experimental and theoretical studies of nuclear reactions

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