THREE-CLUSTER VARIANT OF THE ALGEBRAIC VERSION OF RESONATING GROUP METHOD AND ITS APPLICATION TO THE BOUND STATE PROPERTIES STUDY OF ⁶He AND ⁸He NUCLEI

V. S. Vasilevsky, A. B. Nesterov, F. Arickx, P. Van Louwen

Microscopic model for three-cluster configuration of light nuclei has been formulated in the frameworks of resonating group method in its algebraic version. The model has been applied for the groundstates of ⁶He and ⁸He in configuration of α -particle plus two n-clusters and α -particle plus two ²n-clusters. The results have been obtained emphasize the importance of three-cluster moving mode for adequate description of nuclear properties, especially neutron halo.