عنوان مقاله:

Cluster picture of the weakly-bound nucleus 17F

محل انتشار:

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نویسندگان:

F Rezvani. - *Department of physics, Shahrood University of Technology, Iran*,

M. R Shojaei - *Department of physics, Shahrood University of Technology, Iran*,

خلاصه مقاله:

In this work the clustering phenomenon has been studied in the weakly-bound nucleus 17F. In such nuclei the non-microscopic cluster models can be used. In this model, the general approach is based on assuming the initial nucleus to have two clusters so as the nucleons can be exchanged between these two clusters and the properties of nucleus is resulted from the exchange interaction between clusters. In this work we have calculated the energy levels of 17F nucleus by using non-microscopic cluster model and suppersymmetry method in two states. The results obtained within our model are compared with experiments showing good agreement.

کلمات کلیدی:

cluster model, the weakly-bound nucleus, energy levels,supersymmetry method

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