عنوان مقاله:

Calculation reduced transition probabilities (BE۲ \downarrow) for two holes in ۶۴Ni within modified surface-delta interaction

نویسندگان:

Department of Physics, College of Education for Girls, University of Kufa, Najaf, Iraq - - -

Department of Physics, College of Education for Girls, University of Kufa, Najaf, Iraq - - -

خلاصه مقاله:

Reduced electric quadruple transition probabilities (BE۲ \downarrow) in the mixed configuration of ^{64}Ni with two holes have been calculated within the nuclear shell model. In the present work modified surface delta interaction MSDI within the model space ($\text{۱P}_{۳/۲}$ ₒf$_{۵/۲}$) has been used for two holes neutrons The closed nuclear core is represented by the Ni- ۶۶ nucleus. We have used a theoretical study to find a relationship between the semi-classical coupling angle $\theta_{a,b}$ and the energy levels at different orbital within (hole- hole) configuration. we observed good agreement between theoretical energy levels with experimental data, new values have been specified for both the excited energy levels and the reduced electric quadruple transition probabilities (BE۲ \downarrow), these values are considered as a proposal, that grows theoretical understanding, of the energy levels and the expected transition probabilities through, this work.

کلمات کلیدی:

Modified surface delta interaction, ^{۶۴}Ni , Reduced Transition Probabilities (BE۲) downarrow

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/1561546