

# GROUND STATE MULTIPLY SPLITTING ESTIMATION BASED ON NUCLEI MASSES

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Recently the ground state multiplet formed in nuclei with the pairs of identical nucleons over the magic core was studied. It was shown that ground state multiplet splitting corresponds to the magnitude of nn or pp-pairing  $\Delta_{NN}$  in even-even nuclei. This value can be obtained from nuclei masses data through the even-odd staggering effect [1].

The structure of ground state multiplet in atomic nuclei with double magic core and two identical valence nucleons was obtained by using the residual pairing  $\delta$ -interaction. Calculations with the strength of  $\delta$ -interaction determined by the nucleons pairing  $\Delta_{NN}$  are in a good accordance with experimental data without any fitting procedure [2].

The approach mentioned above is fruitful for investigations of systematic of even-even nuclei with several pairs of identical nucleons over the magic core. Moreover the existence of ground state multiplet in odd-odd nuclei with the magic core and the np-pair gives a possibility to study isospin dependence of nucleons pairing too as it show pairing not only in the even  $J$ , but in the odd  $J$  states.

1. G.Audi *et al.* // Chin. Phys. C. 2012. V.36(12). P.1287; M.Wang *et al.* // Chin. Phys. C. 2012. V.36(12). P.1603.
2. B.S.Ishkhanov *et al.* // Vestnik Moskovskogo Universiteta. Fizika. 2014. N.1. P.3.