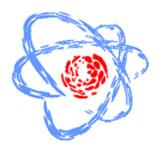
The XXI International Scientific Conference of Young Scientists and Specialists (AYSS-2017)



Contribution ID: 253 Type: Poster

Ground State Multiplet in N~Z nuclei

Tuesday, 3 October 2017 16:30 (1h 50m)

Pairing correlations in even-even and odd-odd N-Z nuclei are studied within the approximation of modified surface delta interaction (MSDI). Mass relations are used to determine the value of pairing energy of identical nucleons in even-even isotopes. This value is treated as an input parameter for MSDI approximation, which can be applied in order to reproduce the ground state multiplet (GSM) in the low-energy part of nuclear spectra. Pairing of neutrons and protons in odd-odd nuclei leads to formation of GSM composed of isovector (T = 1) and isoscalar (T = 0) parts. Through comparison of neighboring even-even and odd-odd isobars, the isovector part of GSM is extracted in experimental spectra of odd-odd isotopes and used to check the predictions given by the MSDI model. An attempt on reproduction of the isoscalar states is made.

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Session Classification: Poster session