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β^+ decay properties of A=100 isotopes

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The estimation of spectrosopic properties of neutron-deficient nuclei in the A=100 tin mass region is needed for the understanding of the rp-process path and the experimental exploration of the nuclear landscape. In order to evaluate some spectroscopic properties of the Gamow-Teller β^+ decay of neutron deficient tin isotopes of A=100, we have performed shell model calculations by means of Oxbash nuclear structure code. The jj45pn valence space used consists of nine proton and neutron orbitals. The calculations included few valence hole-proton and particle-neutron in $\pi g_{9/2}$ and $\nu g_{7/2}$ orbitals respectively, in ^{100}Sn doubly magic core. Effective interaction deduced from CD-Bonn one is introduced taking into account the nuclear monopole effect in this mass region. The results are then compared with the available experimental data.

Keywords: Nuclear Structure, ^{100}Sn core, Monopole Effect, Oxbash Nuclear structure code, β^+ decay, neutron deficient tin isotopes.

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