

## A Distribution of GT-Strength and $\beta$ p-Emission near $^{100}\text{Sn}$

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The Gamow-Teller (GT) transformation of  $\pi g_{9/2}$  into  $\nu g_{7/2}$  dominates  $\beta$ -decay in the region of nuclei "south-east" of doubly-magic  $^{100}\text{Sn}$ . The properties of GT  $\beta$ -strength  $B(\text{GT})$ , due to the selectivity of allowed  $\beta$ -decay, contribute to understanding of nuclear structure near closed shells  $Z=N=50$ . Experimental  $B(\text{GT})$  values, quenched in comparison to the theoretical predictions, allow to deduce the renormalization of the axial-vector weak interaction coupling constant  $g_A$  in a presence of nuclear matter. For many years, the  $\beta$ -decay studies in the  $^{100}\text{Sn}$  region were concentrated on the even-even nuclei. The high resolution gamma spectroscopy methods applied to the decays of odd-odd and odd-even nuclei revealed high GT-strength quenching values, since broad GT-distributions followed by many weak gamma transitions made the proper evaluation of the intensity balance impossible. The development and application of the total absorption spectrometer at the GSI on-line mass separator allowed to extend and complement the  $\beta$  delayed gamma studies of even-even nuclei in the  $^{100}\text{Sn}$  region. Very exotic nuclei (close to the proton drip line) are characterized by large  $Q_{EC}$  window. For these cases where GT strength function extends to very high excitation energies in the respective daughter nuclei a competition between  $\beta$ -delay gammas and protons is expected. Originated from highly excited states, where Fermi function value is small,  $\beta$ -delay protons, carrying away only a few percent of total  $\beta$ -feeding, can substantially influence the strength function shape and its total value. Therefore knowledge of  $\beta$ -delayed gammas as well as protons is needed in the study of GT-strength function of nuclei far from  $\beta$  stability.

An overview of experimentally derived strength function with reference to theoretical predictions as well as  $\beta$ -delay proton distribution in the vicinity of  $^{100}\text{Sn}$  will be presented and discussed.