**PROPERTIES OF GAMOW-TELLER AND CHARGE-EXCHANGE GIANT SPIN-MONOPOLE RESONANCES IN MEDIUM-HEAVY CLOSED-SHELL PARENT NUCLEI: A SEMIMICROSCOPIC DESCRIPTION**

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Properties of giant resonances (GRs) associated with high-energy particle-hole (p-h) excitations in medium-heavy nuclei are described by a number of characteristics and parameters. Main characteristics include the energy-averaged strength function and “projected” transition density, both related to an appropriated single-particle external field (probing operator), and strength functions of direct one-nucleon decay. Being considered in a wide excitation-energy intervals, these characteristics determine, in particular, the GR peak energy, fractions of the respective sum rule, probabilities of direct one-nucleon decay.

In this work, we present a theoretical study of the main properties of Gamow-Teller and charge-exchange (isovector) giant spin-monopole resonances (GTR and , respectively) in a few medium-heavy closed-shell parent nuclei. The study is performed within the semi-microscopic p-h dispersive optical model (PHDOM), in which the main relaxation modes of p-h states associated with GRs are together taken into account. Actually, PHDOM is a microscopically-based extension of the standard and nonstandard versions of the continuum-random-phase-approximation on taking (phenomenologically and in average over the energy) the spreading effect into account. Formulation of PHDOM and its implementations to describing a few of isoscalar and isovector GRs in medium-heavy closed-shell nuclei can be found in Ref. [1] and references therein. Within the model. a realistic partially self-consistent phenomenological mean field and Landau-Migdal p-h interaction are used as input quantities.

In this work, PHDOM is adopted and then implemented to describing main properties of GTR and in the 48Ca, 90Zr, 132Sn, and 208Pb parent nuclei. Calculation results are compared with available experimental data. Most of the results can be found in Ref [2].

1. M.L. Gorelik, S. Shlomo, B.A. Tulupov, and M.H. Urin, Phys. Rev. C 103, 034302 (2021).

2 V.I. Bondarenko, M.H.Urin, <http://arxiv.org/abs/2201.02965>.