

Tensor effects on the isospin excitation with random phase approximation based on relativistic Hartree-Fock approach

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The relativistic representation of the nuclear tensor force has been developed recently. In order to investigate the effects of the tensor force on the isospin excitation in a covariant way, we added the contributions of ρ -tensor couplings to the existing random phase approximation (RPA) based on the relativistic Hartree-Fock approach (RHF). As the first step to study the effects of the tensor force, we will present some results of the RHF+RPA using the parameter set PKA1 and discuss the possible effects of the ρ -tensor couplings. And the plan for the future work will be given.

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