

## **Shape evolution of Ne isotopes and Ne hypernuclei: The interplay of pairing and tensor interactions**

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We study tensor and pairing effects on the quadruple deformation of neon isotopes based on a deformed Skyrme-Hartree-Fock model with BCS approximation for the pairing channel. We extend the Skyrme-Hartree-Fock formalism for the description of single- and double-lambda hypernuclei adopting two different hyperon-nucleon interactions. It is found that the interplay of pairing and tensor interactions is crucial to derive the deformations in several neon isotopes. Especially, the shapes of <sup>26,30</sup>Ne are studied in details in comparisons with experimentally observed shapes. Furthermore the deformations of the hypernuclei are compared with the corresponding neon isotopic cores in the presence of tensor force. We find the same shapes with somewhat smaller deformations for single  $\Lambda$ -hypernuclei compared with their core deformations. It is also pointed out that the latest version of hyperon interaction, the ESC08b model, having a deeper  $\Lambda$  potential makes smaller deformations for hypernuclei than those of another NSC97f model.

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