

The Skyrme Tensor force in Fusion Reactions

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We explore the outcomes of fusion reactions using the full version of the Skyrme interaction including the tensor interaction. Recent calculations have shown that fusion calculations have been highly dependent upon the tensor part of the effective interaction even in cases where the ground states are insensitive to the tensor force, because they are spin-orbit saturated [1]. In this work we present results where the tensor force makes a marked effect in the ground state of the nuclei in question.

[1] P. D. Stevenson et al., Phys. Rev. C 93, 054617 (2016)