

Triaxial Deformation in Atomic Nuclei

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Abstract

It is shown using the triaxial projected shell (TPSM) approach that γ bands observed in atomic nuclei contain important clues on the nature of the triaxial deformation in atomic nuclei. This will be demonstrated using both energy and electromagnetic properties of the γ bands. Further, it is noted that inclusion of the quasiparticle excitations in the TPSM approach inverts the staggering phase for all the 23 nuclei studied, except for the four nuclei of ^{76}Ge , ^{112}Ru , ^{170}Er and ^{232}Th .