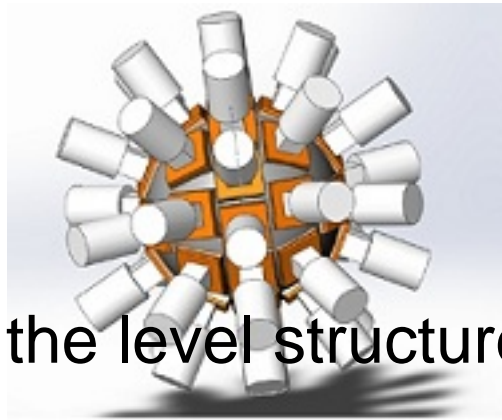


Frontiers in Gamma Ray Spectroscopy

FIG18

Contribution ID : 15



Revisiting the level structure of ^{103}Pd

Content :

The level structure of $A \sim 100$ nuclei reveals intriguing phenomena even at low and moderate spin regimes such as vibrations and rotations built upon prolate deformed states [1,2,3]. The underlying configurations present a favourable condition for the possible observation of wobbling, even at low spins [4]. The aforementioned features provided the necessary impetus for us to revisit the level structure of ^{103}Pd , especially at moderate angular momentum spins. Hence, the $^{94}\text{Zr}(^{13}\text{C}, 4n)$ reaction at an incident energy ~ 55 MeV was employed to populate the high spin states in ^{103}Pd . The ^{94}Zr target was $\sim 1\text{mg}/\text{cm}^2$ thick with $\sim 10\text{mg}/\text{cm}^2$ gold backing. The de-exciting gamma transitions were detected using the Indian National Gamma Array (INGA) then stationed at IUAC, New Delhi. The detectors placed at angles of 32° , 57° , 90° , 123° and 148° with respect to the beam direction.

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Session classification : --not yet classified--

Track classification : --not yet classified--

Type : Poster