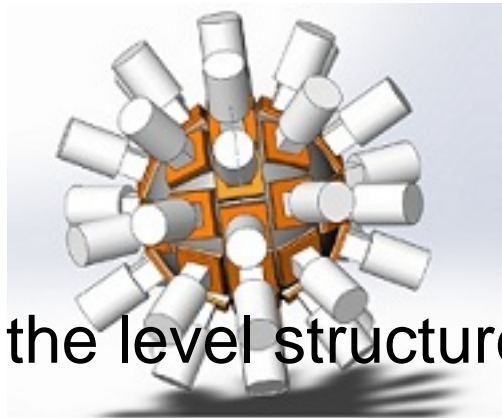


# Frontiers in Gamma Ray Spectroscopy

## FIG18

Contribution ID : 15



## Revisiting the level structure of $^{103}\text{Pd}$

### 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  $^{103}\text{Pd}$ , especially at moderate angular momentum spins. Hence, the  $^{94}\text{Zr}(^{13}\text{C}, 4n)$  reaction at an incident energy  $\sim 55$  MeV was employed to populate the high spin states in  $^{103}\text{Pd}$ . The  $^{94}\text{Zr}$  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  $32^\circ$ ,  $57^\circ$ ,  $90^\circ$ ,  $123^\circ$  and  $148^\circ$  with respect to the beam direction.

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