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Type: **Poster Presentation**

Analysis of the $^{150}\text{Sm}(4\text{He},2n)^{152}\text{Gd}$ data taken with the AFRODITE spectrometer

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The detailed spectroscopy of ^{152}Gd has been studied at iThemba Laboratory for Accelerator Based Sciences using the $^{150}\text{Sm}(\alpha,2n)^{152}\text{Gd}$ reaction and the AFRODITE gamma-ray spectrometer. The aim is to investigate the E1 transitions between the octupole and the first excited 02^+ bands, and also to build previously known decay scheme of ^{152}Gd and extend it with new transitions that have not been observed within the decay scheme of ^{152}Gd or even new bands. We intend to observe in detail the gamma bands with their odd-even signature splitting and to look for structures (gamma bands and octupole negative parity bands) built on the 02^+ configurations.

Summary

Here we are trying to populate the low spins of ^{152}Gd since we were using beam energy of 25mev and to also extend the decay scheme side ways

Apply to be considered for a student award (Yes / No)?

Yes

Level for award (Hons, MSc, PhD, N/A)?

Msc

Main supervisor (name and email) and his / her institution

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Institution: university of the western cape

Would you like to submit a short paper for the Conference Proceedings (Yes / No)?

No

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