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Type: **Poster Presentation**

Study of Excited 0^+ States via Electron Spectroscopy

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A state of the art electron spectrometer for the measurement of internal conversion electrons is undergoing development at iThemba LABS. The spectrometer will be used to study the nuclear configuration of multiple excited 0^+ states such as in Cd nuclei. The study focuses on the high-energy internal conversion electrons and through pair production from these nuclei. At present, measurements of ^{226}Ra and ^{207}Bi decay spectra have been carried out to optimize the energy efficiencies and resolutions of the detectors for the implementation of excited 0^+ state studies of high-energy electrons with magnetic solenoid spectrometers. ^{226}Ra and ^{207}Bi were used as the sources of radiation, where alpha particles and electrons were emitted, respectively. In this presentation, the results for the energy resolution together intrinsic and absolute energy efficiencies of detectors for future use in experiments will be presented.

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

Yes

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

PHD

Main supervisor (name and email)&br>and his / her institution

Dr Pete Jones,
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 iThemba LABS,

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

no

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