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Type: Talk

## Development of cryogenic calorimeters to measure the spectral shape of Indium-115 beta decay

The spectral shape of forbidden beta-decays is a crucial benchmark for nuclear physics calculations and has important implications also for astroparticle physics experiments.

In the list of interesting isotopes to be measured, Indium-115 is one of the most suitable due to the relatively high Q-value (497.954 keV) and half-life ( $4.41 \times 10^{14}$  yr).

We propose to exploit a cryogenic calorimeter based on indium oxide crystal to perform a high-precision measurement of the decay energy spectrum. Such a detector is the first step for building an Array of Cryogenic Calorimeter to Evaluate Spectral Shapes (ACCESS).

In this contribution, we present the project outline and the results obtained with a preliminary test.

### Is this abstract from experiment?

No

### Name of experiment and experimental site

N/A

### Is the speaker for that presentation defined?

Yes

### Details

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### Internet talk

No

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