

Lifetime measurements on $A \sim 100$ nuclei using $\text{LaBr}_3(\text{Ce})$ arrays.

The region of the nuclear chart around neutron-rich $A \sim 100$ nuclei is one where prolate and oblate nuclear shapes are predicted to be in close competition. An indirect measurement of the shape of the nucleus can be obtained from measuring level lifetimes which relate, via transition rates, to β_2 deformation. In order to make measurements of level lifetimes in the sub nanosecond range an array of 36 $\text{LaBr}_3(\text{Ce})$ detectors has been constructed for use at the FAIR facility in Darmstadt, Germany. This presentation will give an overview of the array and examples of its use in commissioning experiments at the RIKEN Nishina Center in Japan and the Argonne National Laboratory in the USA.

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