Gamma ray measurement with position-sensitive Ge detector array GRAPE using the 238U beam at the RI Beam Factory

Gamma-Ray Detector Array with Position and Energy Sensitivity (GRAPE) has been developed since 2000 for high-resolution in-beam γ -ray spectroscopy using Radioactive Ion (RI) beams.

In the RIBF DA21-05 machine time, 238U at 650 kcps intensity and 307 MeV/u energy irradiated TiD, Ti, and CD2 targets , and gamma rays emitted at the F8 focal plane were measured with 6 GRAPE detectors. Background events were removed using a Si detector surrounding the F8 target. The measured gamma-ray spectra are described.

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