

Abstract Submitted
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Observation of new neutron-rich micro-second isomers among fission products of ^{238}U at 345 MeV/u DAISUKE KAMEDA, TARO NAKAO, TOSHIYUKI KUBO, TETSUYA OHNISHI, HIROYUKI TAKEDA, NAOKI FUKUDA, KENSUKE KUSAKA, ATSUSHI YOSHIDA, KOICHI YOSHIDA, MASAO OHTAKE, NAOHITO INABE, YOSHIYUKI YANAGISAWA, KANENOBU TANAKA, YASUYUKI GONO, RIKEN Nishina Center, BIGRIPS/ZERODEGREE NEW ISOTOPE COLLABORATION — In the production of the radioactive isotope (RI) beam using projectile fragment separators, γ rays emitted from metastable states, isomers, of the reaction products can be used as a fingerprint of the isotope that is analyzed in the separator. In the operation of the superconducting in-flight RI beam separator BigRIPS [1] at RIKEN RI Beam Factory, the detection of such γ rays plays important roles not only in the identification of the RI beam [2] but also in searching for new isomers, providing valuable spectroscopic information on the isotopes. In the recent new-isotope production experiment with BigRIPS using in-flight fission of 345 MeV/nucleon ^{238}U at the beam intensity around 0.3 pA, we have observed a number of short-lived isomeric decays which include unknown decays from more than 10 isotopes, using three clover-type Ge detectors with a beam stopper of aluminum. The primal result of the observations will be reported. [1] T. Kubo: Nucl. Instr. and Meth. B **204** (2003) 97. [2] T. Ohnishi et al.: J. Phys. Soc. Japan, **77** (2008) 083201.

Daisuke Kameda
RIKEN Nishina Center

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