Abstract Submitted for the HAW14 Meeting of The American Physical Society

Identification of 25 new neutron-rich isotopes produced in the EURICA uranium beam campaign at RIKEN RIBF YOHEI SHIMIZU, TOSHIYUKI KUBO, NAOKI FUKUDA, DEUKSOON AHN, NAOHITO INABE, DAISUKE KAMEDA, HIROMI SATO, HIROSHI SUZUKI, HIROYUKI TAKEDA, KOICHI YOSHIDA, RIKEN Nishina Center, EURICA COLLABORATION — The EUROBALL RIKEN Cluster Array (EURICA) collaboration aims to conduct isomer and β -delayed γ -ray spectroscopy of several hundred nuclei far from stability. In 2012 and 2013, at the RIKEN Nishina Center RI Beam Factory, the EURICA uranium beam campaign was been conducted to investigate isomeric decays from very neutron-rich nuclei and their β decays. In the EURICA uranium beam campaign, the nuclei of interest were produced by the in-flight fission of 345 MeV/nucleon ²³⁸U beam colliding with a Be target. Fission fragments were identified by using the superconducting in-flight separator BigRIPS. The particle identification was performed using the ΔE -TOF-B ρ method. We observed 25 new neutron-rich isotopes: ¹¹⁶Nb, $^{118}\mathrm{Mo}, ~^{121,122}\mathrm{Tc}, ~^{125}\mathrm{Ru}, ~^{127}\mathrm{Rh}, ~^{129,130,131}\mathrm{Pd}, ~^{132}\mathrm{Ag}, ~^{134}\mathrm{Cd}, ~^{136,137,138}\mathrm{In}, ~^{139,140}\mathrm{Sn}, ~^{13$ 141,142,143 Sb, 144,145 Te, 146,147 I, 149 Xe, and 154 Ba. In this contribution, details of the measurement and analysis will be presented.

> Yohei Shimizu RIKEN Nishina Center

Date submitted: 01 Jul 2014 Electronic form version 1.4