

Abstract Submitted
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Production of rare isotopes at RIKEN RI Beam Factory: summary of search for neutron-rich new isotopes NAOKI FUKUDA, DAISUKE KAMEDA, HIROYUKI TAKEDA, HIROSHI SUZUKI, DEUKSOON AHN, YOHEI SHIMIZU, DAICHI MURAI, NAOHITO INABE, TOSHIYUKI KUBO, RIKEN Nishina Center — We report production of rare isotopes (RI) at the RIKEN RI Beam Factory (RIBF), focusing on the progress of search for neutron-rich new isotopes, which have been conducted since the commissioning in 2007. The experiments were performed with the BigRIPS fragment separator by using the in-flight fission of ^{238}U beam at 345 MeV/nucleon. Thanks to the large ion-optical acceptances and excellent performance in particle identification of the BigRIPS, more than 120 new isotopes have successfully been observed so far. In this talk, the summary of new-isotope search experiments will be presented along with the capability of the BigRIPS separator. We will also sum up various types of experiments, which were carried out with a variety of RI beams produced at the BigRIPS.

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