独立行政法人理化学研究所　仁科加速器研究センター
第１１３回RIBF核物理セミナー
RIKEN Nishina Center for Accelerator Based Science
The 113th RIBF Nuclear Physics Seminar

β-Decay Half-lives of Very Neutron-rich Kr to Tc Isotopes on the Boundary of the r-process Path: An Indication of Fast r-Matter Flow

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The β-decay half-lives of 38 neutron-rich isotopes from $_{36}$Kr to $_{43}$Tc have been measured; the half-lives of ^{100}Kr, $^{103-105}$Sr, $^{106-108}$Y, $^{108-110}$Zr, ^{111,112}Nb, $^{112-115}$Mo and ^{116,117}Tc are reported here for the first time. These results when compared to previous standard models indicate an overestimation in the predicted half-lives by a factor of two or more in the A∼110 region. A revised model based on the second generation gross theory of β decay better predicts the measured half-lives and suggests a more rapid flow of the rapid neutron-capture process (r-matter flow) through this region than previously predicted.

Feb. 8（Tue）, 2011　13:30-
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The seminar will be given in English.

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