

Abstract Submitted
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Measurements of neutron capture cross sections using a $4\pi\text{Ge}$ spectrometer at the J-PARC/MLF/NNRI¹ HIDEO HARADA, KAZUYOSHI FURUTAKA, SHINJI GOKO, ATSUSHI KIMURA, TADAHIRO KIN, FUMITO KITATANI, MITSUO KOIZUMI, SHOJI NAKAMURA, MASAYUKI OHTA, MASUMI OSHIMA, YOSUKE TOH, JAEA, MASAYUKI IGASHIRA, TATSUYA KATABUCHI, MOTOHARU MIZUMOTO, Tokyo Institute of Technology, MICHIO FURUSAKA, FUJIO HIRAGA, TAKASHI KAMIYAMA, KOICHI KINO, YOSHIAKI KIYANAGI, Hokkaido U., TOSHIYUKI FUJII, JUNICHI HORI, KOICHI TAKAMIYA, Kyoto U. — The measurements of neutron capture cross sections have been started using a $4\pi\text{Ge}$ spectrometer at the neutron nucleus reaction instrument (NNRI) in the J-PARC/MLF. First test measurements using the spectrometer have been performed for radioactive samples such as Cm-244, etc. The test experiments have demonstrated the capability of measuring the neutron capture cross section of Cm-244 with a sample mass of less than 1mg. We will report preliminary results of the initial experiments, and discuss the new capability.

¹Present study is the result of “Study on nuclear data by using a high intensity pulsed neutron source for advanced nuclear system” entrusted to Hokkaido University by the Ministry of Education, Culture, Sports, Science and Technology of Japan (MEXT).

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