



Rapid News



25th February, 2019

Dear Colleagues,

On 14th and 15th, February 2019, first nuclear transmutation of Minor Actinides ($Np-237$ and $Am-241$) by the accelerator-driven system was successfully demonstrated in a subcritical core at the Kyoto University Critical Assembly (KUCA) using the Fixed-Field Alternating Gradient (FFAG) accelerator (100 MeV protons and Pb-Bi target).

Many thanks for your time and interests in advance.

*Institute for Integrated Radiation and Nuclear Science,
Kyoto University
Cheol Ho Pyeon*

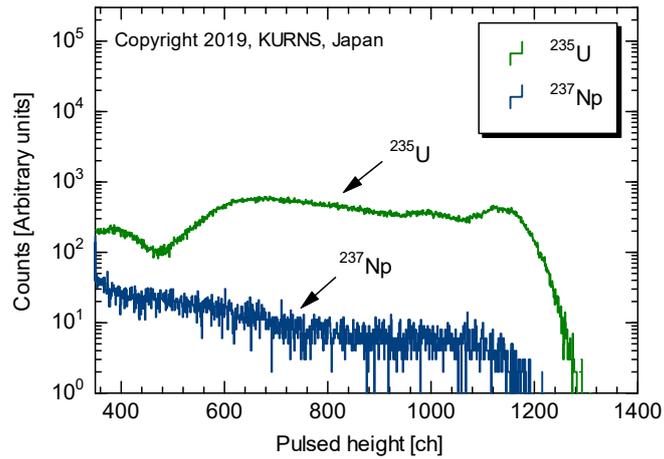


Fig. 1 Measured pulsed heights of ^{237}Np and ^{235}U fission reaction rates at subcritical state

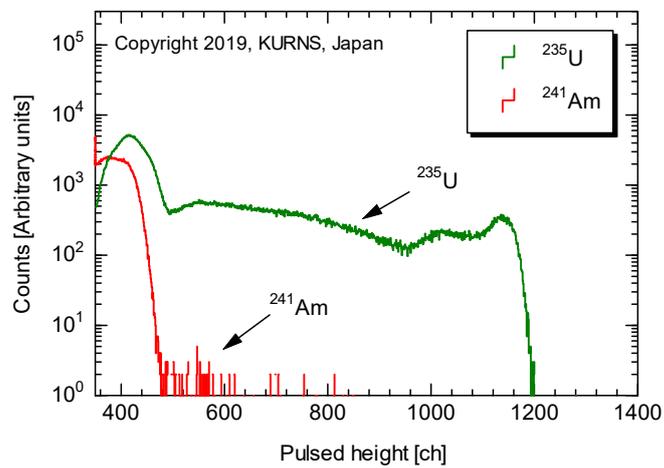


Fig. 2 Measured pulsed heights of ^{241}Am and ^{235}U fission reaction rates at subcritical state

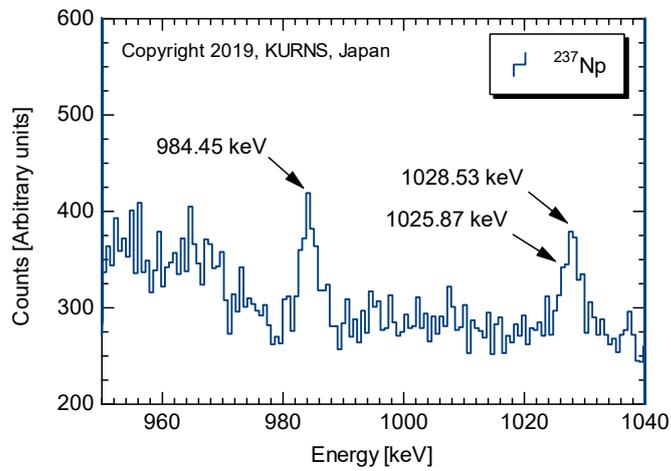


Fig. 3 Measured γ -ray spectrum of ^{237}Np capture reaction rates at subcritical state