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.

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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 $\gamma$-ray spectrum of $^{237}$Np capture reaction rates at subcritical state