Introduction to the nuclear data processing code FRENDY

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Nuclear data processing has an important role in connecting evaluated nuclear data libraries, such as ENDF/B, JEFF, and JENDL, and particle transport calculation codes, such as MCNP, Serpent, and PHITS. Figure 1 shows an example of nuclear data processing. Though nuclear data processing methods and parameters have a large impact on neutronic calculation results, only a limited number of researchers and engineers are familiar with nuclear data processing. This workshop will provide an overview of nuclear data processing methods and explain how to generate cross section files using the nuclear data processing code FRENDY. Since the FRENDY input format is very simple, everyone will be able to generate cross section files.

This workshop consists of two parts. The first 2 hours part provides an overview of nuclear data processing methods. The remaining hour part explains the input format of FRENDY. Expected participants are beginners in nuclear data processing. This workshop will be very useful for those who want to know how to generate cross section files or who want to generate them.

This workshop is a lecture course. The special equipment, such as a laptop, is not required. If a participant would like to view the presentation materials on a laptop, please download them from the following JAEA website:

https://rpg.jaea.go.jp/main/en/program_frendy/index.html#training

The execution of FRENDY by participants is outside the scope of this workshop. We will be happy to assist you if you have any questions about the cross section file generation using FRENDY before or after the workshop.

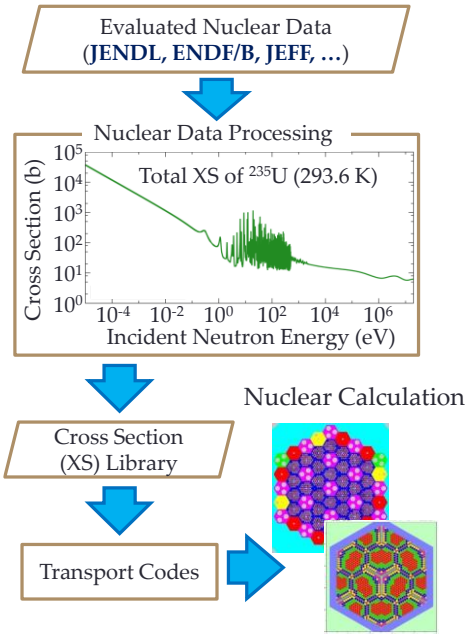

Figure 1. Example of nuclear data processing.