

Progress Report of
Nuclear Data Center of Japan Atomic Energy Agency
for April 2016 – March 2018

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1. General

Nuclear Data Center of Japan Atomic Energy Agency (JAEA/NDC) is working on evaluation and measurement of nuclear data for Japanese Evaluated Nuclear Data Library JENDL. The experiments mainly performed using Accurate Neutron-Nucleus Reaction measurement Instrument (ANNRI) installed in Material and Life Science Experimental Facility at J-PARC. The evaluation and related works are performed in the cooperation with Universities, Research Organizations and Companies in Japan through Japanese Nuclear Data Committee. The number of Nuclear Data Center members is 14 consisting of 8 regular staffs, 2 advisors, 3 postdocs and 1 secretaries as of April 17, 2018.

2. Nuclear Data Evaluation

The latest version of general purpose nuclear data library JENDL-4.0 was released in May 2010. The 38 files fixing problems found in JENDL-4.0 have been released as JENDL-4.0 Updated Files until now. Two special purpose files were released in period of April 2016 to March 2018. One is the JENDL Photonuclear Data File 2016 (JENDL/PD-2016) released December 2017 including photonuclear reaction data up to 140 MeV for 2681 nuclei. The other is the JENDL Activation Cross Section File for Nuclear Decommissioning 2017 (JENDL/AD-2017) released in March 2018.

Evaluations of nuclear data for the next version of the general-purpose file JENDL-5 are in progress.

3. Nuclear Data Measurement

Neutron capture cross sections have been measured for the isotopes of Sn, Cs, Gd, Eu and Am with the array of Ge spectrometer at the J-PARC/MLF/ANNRI. Neutron transmission system has also been developed and the transmission data have been obtained for Am isotopes with ANNRI.

4. Other Services

The data in JENDL are available at web site (<https://www.ndc.jaea.go.jp/index.html>).

The monthly downloaded data size in April 2017 to March 2018 is shown in Fig.1. The share by the country in the same period is shown in Fig.2.

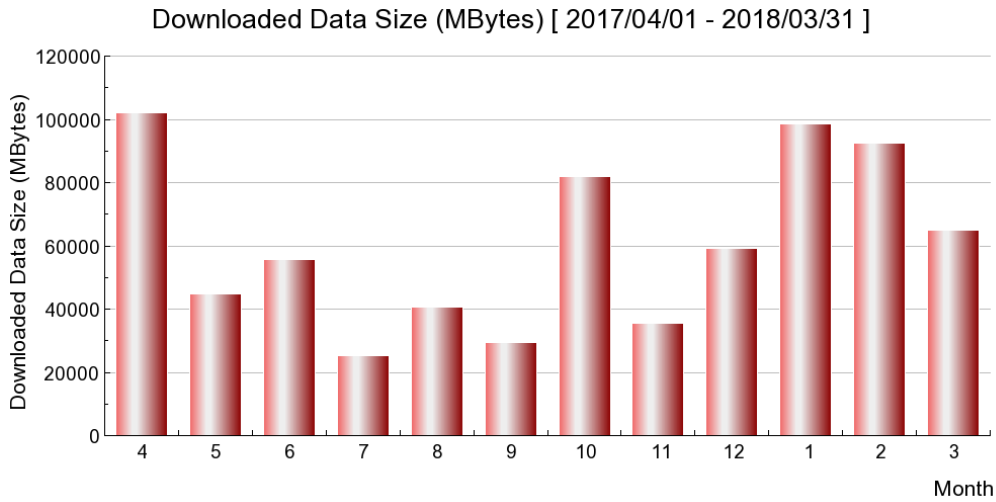
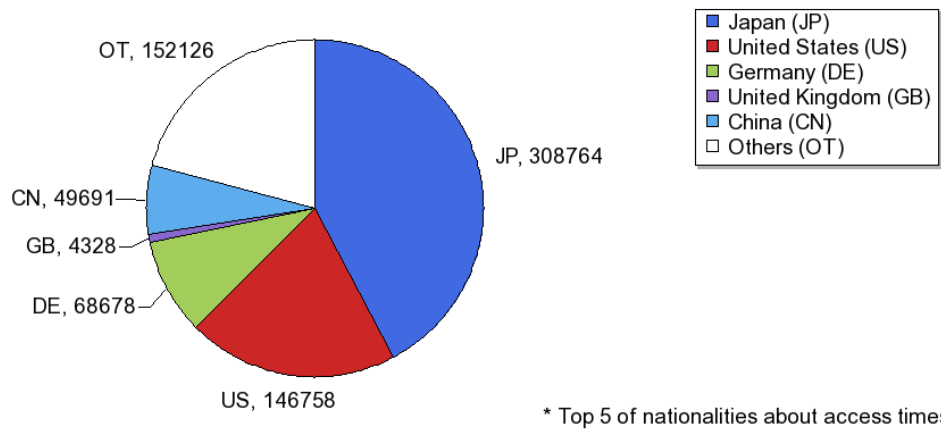


Fig.1 Downloaded data size in period of April 2017 to March 2018.

Downloaded Data Size (MBytes) (Top 5) [2017/04/01 - 2018/03/31]



* Top 5 of nationalities about access times

Fig. 2 Downloaded data by countries.