

Progress Report of
Nuclear Data Center of Japan Atomic Energy Agency
for April 2015 – March 2016

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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 are 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 staff members is 17 including 6 postdocs and 1 secretaries as of April 1, 2016.

2. Nuclear Data Evaluation

The latest version of general purpose nuclear data library JENDL-4.0 was released in May 2010. Revised files fixing problems arising in JENDL-4.0 have been released as JENDL-4.0 Updated Files since 2012. Six updated files of Sr, Pb and Rh isotopes have been released since 2015. In 2015 two special purpose files were newly released. One is the JENDL-4.0 High Energy File (JENDL-4.0/HE) which is an extended version of JENDL-4.0 up to 200 MeV for neutron induced reactions on 130 nuclei. It also includes evaluated cross-sections for incident protons up to the same energy for 133 nuclei. The other is JENDL Decay Data File 2015 (JENDL/DDF-2015) which contains decay data for 3,237 nuclides ranging from the lightest elements including H-1 and n, up to Rf (Z=104) based on JENDL/FPD-2011 and ENSDF.

Nuclear data evaluation for the neutron activation file and the photonuclear data file is in progress. They will be released in the near future.

3. Other Services

The data related to JENDL are provided on our web site (<http://www.ndc.jaea.go.jp/index.html>). The monthly downloaded data size in April 2015 to March 2016 is shown in Fig.1. The share by the country in the same period is shown in Fig.2.

Web version of the Chart of the Nuclides 2014 was released on 8 June 2015. It contains basic nuclear properties such as mass, spin, half-life etc. The user interface was also updated from the previous version (Fig. 3).

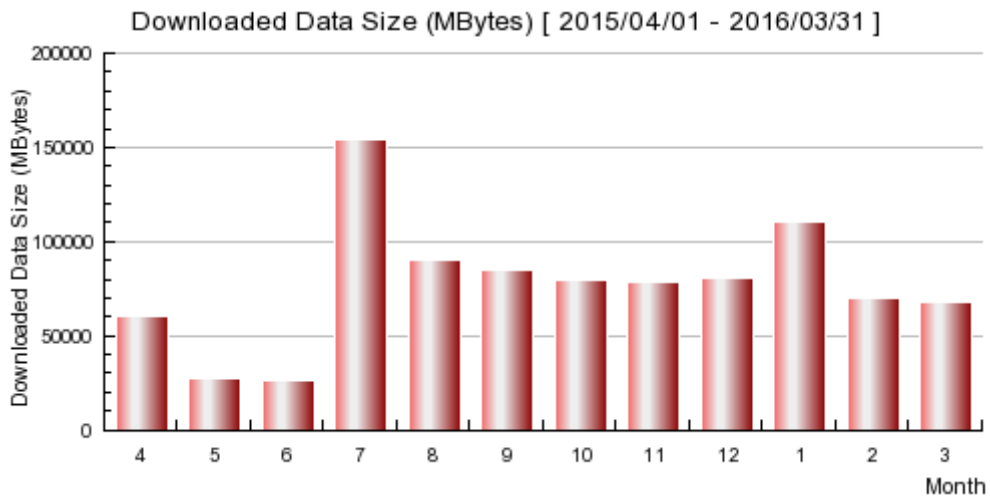


Fig.1 Downloaded data size in period of April 2013 to February 2014.

Downloaded Data Size (MBytes) (Top 5) [2015/04/01 - 2016/03/31]

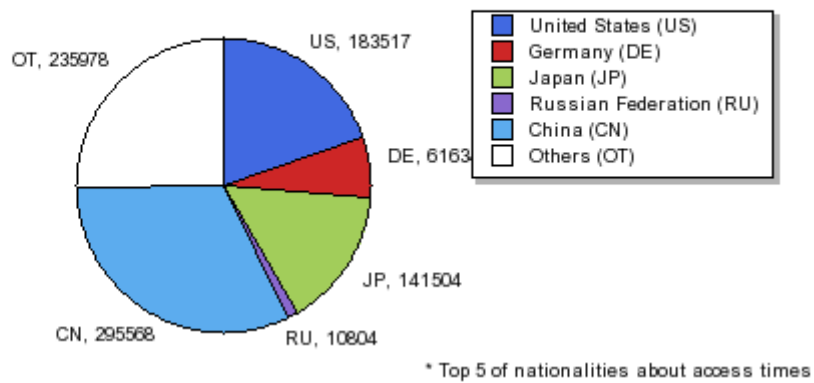


Fig. 2 Downloaded data by countries.

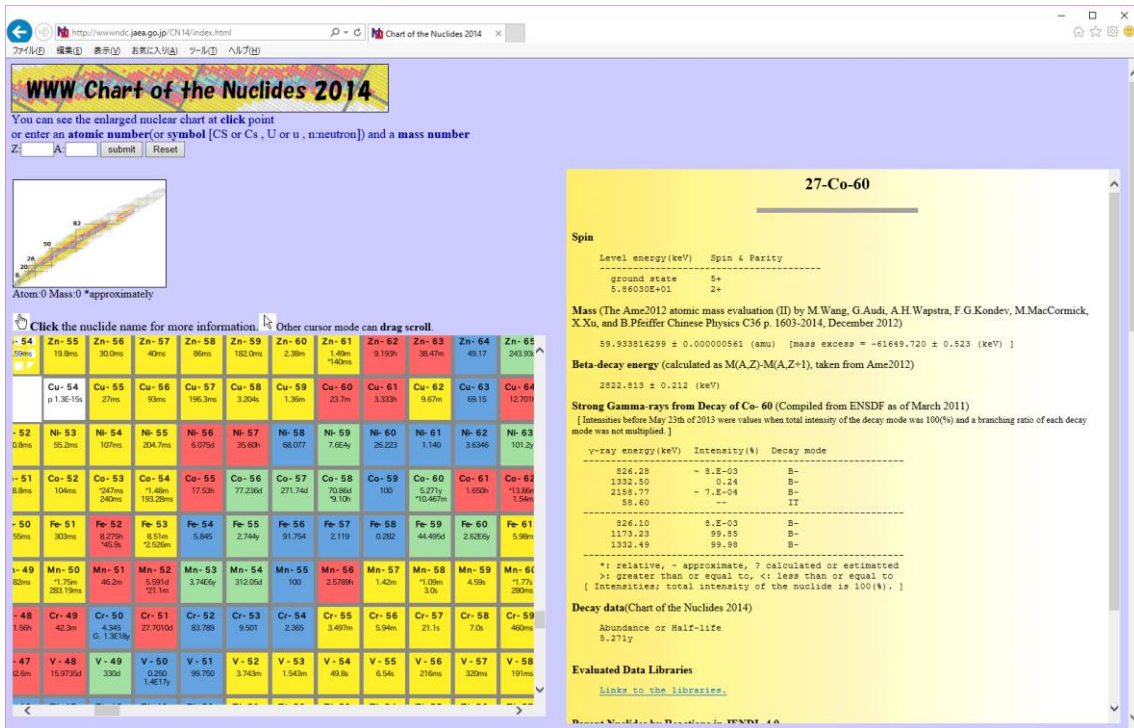


Fig. 3 WWW Chart of the Nuclides 2014