

**Nuclear Data Section
International Atomic Energy Agency
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Memo CP-D/761

Date: 18 September 2012
To: Distribution
From: V. Semkova, N. Otsuka

Subject: Benchmarking of the Digitization Software

Regarding the origin of the data included in the EXFOR database during the last decade we can say that about 40% of the all entries compiled each year contain digitized data. Moreover many of the future compilations agreed at the 2012 NRDC Meeting, such as a number of old articles found in the Landolt-Börnstein data book, will require digitization.

There have been new developments in the digitizing software used by compilers since the last benchmark organized by Nuclear Data Section in 2005. In addition some new codes have become available as well.

We believe it is important to check the quality and consistency of the digitized data included in EXFOR. Also the feedback from compilers could be useful for developers to improve the codes and make them more user-friendly.

With this Memo we would like to propose a small comparison exercise, and all compilers are invited to this exercise. It is not necessary to prepare a representative entry from your centre.

The procedure to participate to the benchmark is:

1. Digitize the data on fig.1 and data indicated as "Present data" on fig.2 (both attached to this Memo).
2. Include the digitized values to the DATA sections of the template file (template.txt).
3. Include an estimate of the digitization accuracy in the COMMON section if available.
4. Provide the digitizer and compiler names under FACILITY and HISTORY, respectively.
5. Run ORDER and CHEX. (Entries showing an error message may be rejected.)
6. Change the file name to your name, and send it to V.Semkova@iaea.org.
7. You can send also feedback/recommendations for further software development.

Your input will be very much appreciated.

The results from the benchmark will be discussed at the CM “Benchmarking of Digitizing Software” that will take place in Vienna from 12 to 14 of November 2012 and included in the report of the Meeting.

The participants are invited to submit the files with the digitized data by October 31, 2012.
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