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Compilation activity

Three final files trans.f050, trans.f051 and trans.f052 were submitted for the EXFOR data library within the past period. They include 22 new entries and 42 revised entries.

Two preliminary files were also prepared for EXFOR: prelim.f053 and prelim.f054. The last one was made by S. Dunaeva. Prelim.f054 includes the corrected entries only. We continued the activity related to error correction. As usual many efforts were made in this field.

From the beginning of the year we gradually prepare ourselves for the fulfillment of our new duties. According to the primary agreement (Memo CP-D/824) our centre will soon start compilation of charged particles nuclear data obtained in former Soviet Union countries (except Ukraine). (Our previous responsibility was compilation of CPND on light nuclei, coordinated with other Centres).

Software

EXFOR-Editor

At present we continue maintaining of the EXFOR-Editor software taking into account comments and wishes of our users. In the last version of the program a possibility of data presentation in the extended X4+ format was implemented. This work was performed in close cooperation with V. Zerkin. The last version of Trans Checker code has been included to the EXFOR-Editor.

Development of a new version of our digitizing program InpGraph has been practically completed. Now the last checking and testing of the program is being performed. New principles of data processing and totally new interface have been implemented in this version.

General

S. Taova and G. Pikulina took part in the Workshop on Exfor compilation, which was held in August 27-30, 2013 in Vienna. Primary attention was paid to the accuracy of data presentation in EXFOR.

Situation with too low digitizing error obtained in the program InpGraph was discussed. The program code was revised and the error was revealed. For logarithmic scale a relative error is estimated. In our program the obtained value was not multiplied by a factor 100 (in order to present data in percents).

Report “Approaches to estimation of error introduced to numeric data at digitization of graphic documentation” was presented for discussion at the Workshop. It was proposed when estimating digitizing error to take additionally into account an error of quantization. Special Memo CP-F/010 was issued with detailed description of such approach.

G. Pikulina presented a Guide for EXFOR Compilers “Validation of a Format of Data Input to the EXFOR Data Library by EXFOR-Editor”. In this manual main procedures of data checking provided by EXFOR-Editor are described. They include:

- control of numerical data input;
- verification of numerical data;
- common checking procedures of EXFOR data format input.

Recommendations mentioned in this manual may be useful not only for the beginners but for the experienced compilers as well.