

Center of Nuclear Physics Data (CNPD), RFNC-VNIIEF

Technical paper for the NRDC Meeting, GCNEP, Bahadurgarh, India, May 1-4, 2018

S. Taova

Russian Federal Nuclear Center-VNIIEF
Russia, 607188, Sarov, Nizhnii Novgorod region, Mira Ave., 37

Compilation activity

Three final files trans.f065, trans.f066, trans.f067 and prelim.a088 were submitted for the EXFOR data library within the past period. These files include 25 new entries and 75 revised entries.

Still actual is the problem of making contacts with the authors. Sometimes it is very difficult to connect with experimenters to prove data presented in the entry.

Much attention was given to correct old entries. The total number of errors in F and A areas reduced significantly. In some cases it was not a trivial correction but complete recompilation of entries (for example F0160).

Software

EXFOR-Editor, InpGraph

The works on perfecting EXFOR-Editor and InpGraph programs are being carried out constantly. Two versions of the ExfData program - 3.2 and 3.3 - were released. User's comments and wishes were taken into account to improve the work of the program.

Dictionary update is being performed on a regular basis.

Significant changes were made in program InpGraph. New module was included to the digitizer. It permits performing the initial numeric data treatment in the program immediately. So it is possible to arrange DATA SECTION in the program and then transfer it to EXFOR-Editor.

General

S. Selyankina was invited as a consultant to the NDS. She performed data compilation for Exfor library and scanned journals.

There were multiple discussions devoted to the final view of Exfor Booklet (short description of Exfor data library (Library + Information System). The last version includes all the wishes and recommendations obtained within the discussion.

Scanning of journals "Izvestiya Akademii Nauk" and "Yadernaya Fizika" is being performed regularly to reveal articles relevant to be compiled to Exfor library. The reports on scanning results are submitted to the NDS, IAEA every month.

In September, 12-15, 2017 CNPD members took an active part in the work of International Scientific Forum “Nuclear Science and Technologies” dedicated to the 60-th anniversary of the Institute of Nuclear Physics of Republic of Kazakhstan. Three reports were presented: “Evaluated integral cross section of ${}^3\text{H}(t,2n){}^4\text{He}$ reaction in the low energy region obtained with regard to electron screening” (S. Taova), “Evaluation of cross section of ${}^{10}\text{Be}$ radioactive nuclei production at deuteron interaction with ${}^9\text{Be}$ ” (S. Selyankina), “RFNC-VNIIEF Nuclear Physics Data Center activities in experimental data compilation for international library Exfor. Exfor-Editor program complex” (G. Pikulina). In the report of G. Pikulina together with the CNPD achievements on data compilation the detailed description of the EXFOR-Editor program is presented. This material will be published in the Russian journal “Nuclear Physics and Engineering”.