# Center of Nuclear-Physics Data (CNPD) RFNC-VNIIEF. Status report to the IAEA Advisory Group Meeting, May 27-30, 2002.

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# Compilation.

CNPD continues to compile charged-particle reaction data. In the period from June 2001 to May 2002, 3 transmission tapes (TRANS F011, T009-T010) were sent containing new and corrected entries.

Experimental data compilation and checking have been made using the VMS operating system with the help of NNDC software and Windows operating system with the help of the own and CAJaD software.

### Collaboration.

We worked in collaboration with the NNDC. CNPD digitizes data produced in the US and Canada for entries with mark "C" and "T".

As we reported at the last meeting we prepared a project to CRDF in collaboration with NNDC. The goal of the project is to review and evaluate alpha-induced cross sections for nuclei with  $8 \le Z \le 32$  and  $E_{c.m.} \le 20$  MeV. The results of our efforts are not clear up today. We hope on the best. NNDC and CPND presented the report about it at the International Conference "Nuclear data in the Science and Technology" that was held in Japan.

Now we prepared another project that we try to pass through ISTC. The objective of this project is to create an integrated relational base (IRBD) of data on nuclear reactions, to fill it with data from libraries EXFOR/CSISRS, NSR, specialized PNI library, science and engineering journals and other similar information sources. We plan to fulfill this work in collaboration with other Russian centers. We hope that NRDC meeting supports our effort and pleads with representatives of France and Japan for sending the official letters to their financial ISTC committees.

#### Software.

Now we develop new SaBa's interface, extend the range of the nuclei (up to Fluorine) and include thermonuclear reaction rates calculations. The results of this work we presented in October 2001 at the International Conference in Japan ("Nuclear data in the Science and Technology"). CNPD plans to send it to the IAEA at the end of this year.

New software for digitizing curves is in progress. Unfortunately, there are a few mistakes in the old version.

The EXFOR data were input to the NDX system. Now NDX includes all international nuclear data libraries excluding NSR and CINDA.

## **Evaluation and experiments.**

The evaluation and experiment activity was stimulated by participation of the CNPD staff in some international projects.

In 2001 the new ISTC project K-497 was started. It is financed by USA. The main goal of this project is to measure and calculate charged particles induced cross sections for the light nuclei including Fluorine. In the frame of this project:

- New  $^{11}$ B(p, $\gamma$ ) reaction measurements were carried out at RFNC-VNIIEF. The results were reported on the International Conference in Japan ("Nuclear data in the Science and Technology").
- New  ${}^{9}\text{Be}(p,\alpha_2){}^{6}\text{Li}$  reaction measurements were made at the end of the last year. The results will be reported at the conference in Moscow in June 2002.
- CNPD plan to reevaluate the  ${}^{9}\text{Be}(p, \gamma){}^{10}\text{B}$  and  ${}^{7}\text{Be}(p, \gamma){}^{8}\text{B}$  reactions. The results will be published in the report.
- CNPD continues scanning the old journals. The goal of this scanning is to find all missed papers with the experimental results that are important for the goal of project.