

Future NRDC Cooperation on CINDA

Prepared for the Nuclear Reaction Data Center Meeting
May 2002

V. McLane, M. Lammer, O. Schwerer

General

This document contains several proposals, which are meant as a starting point for further discussions. The three main points addressed are: 1) the transmitting of CINDA entries needs to be reorganised, 2) transmission of CINDA entries in the new formats should be initiated before the end of the year, and 3) the new CINDA database should be considered as an index to the experimental and evaluated data files. Detailed proposals follow.

CINDA Transmission

A subset of the original “core” centers will be responsible for all CINDA transmissions. That is, the NNDC will be responsible for the US and Canada, the NEA Data Bank will be responsible for the NEA member countries, and the NDS will be responsible for the rest of the world. All other centers compiling new references will transmit the data through one of these three centers.

Creation of a CINDA database in the new format

In order to allow time for the centers to work on the creation of their new CINDA databases, there will be a moratorium on new transmissions for some period of time before the changeover. (A time schedule should be completed before the end of the 2002 NRDC Meeting). The database creation project consists of four parts: 1) the conversion of the existing library, 2) the production of a starter library for charged particle and photonuclear data, 3) the addition of new entries, and 4) the addition of entries from other existing bibliographies, and the merging of these entries with the existing database.

1. Conversion of the existing CINDA library:

Each neutron center, or its designated center, will:

- Either convert its CINDA master file to the new format,
- Or will retrieve the data for their area in the exchange format and send it to NNDC to be converted.

These files will be distributed by NDS to those centers that want them.

Completion: October 2002 (moratorium initiated).

2. Production of a starter library for charged particle and photonuclear data

A starter library of charged-particle and photonuclear data references will be produced by NDS/NNDC from the existing EXFOR database after the EXFOR master file comparison is completed and the libraries are updated.

This library will then be distributed to those centers who want it.

Completion: December 2002

3. Addition of new entries

For new CINDA entries, an agreement will be reached with the center responsible for co-ordination of coverage as to who will compile which references. After the entries are compiled, they will be sent through the co-ordinating center to NDS. NDS will check and distribute the entries.

Implementation: January 2003 (moratorium lifted).

4. Addition of entries from other existing bibliographies

There exist several other bibliographies that contain nuclear reaction references in a form useful for conversion and entry into the CINDA database. Among these are the CPBIB at NNDC and Photonuclear Data at CDFE. The conversion of these files to the CINDA format will greatly add to the coverage of the literature in the database. However, each reference must be checked against the contents of the CINDA database a) to see if it already exists in the database, and b) if it does not exist, to see if it should be loaded into an already existing block. This checking and blocking may take a considerable amount of time to complete.

Completion: to be decided for each database to be converted.

Contents of CINDA

From 2002 forward, CINDA will be considered to be an index to the experimental and evaluated data, that is, entries for theory (except those given in EXFOR entries), compilations, and reviews will not be entered in CINDA. Such references are now entered in Nuclear Science References (NSR), and present coverage seems to be complete; 98% of all new theory references given in CINDA are already in NSR; a comparison of CINDA theory entries for 2000-2002 to NSR found only 4 missing references in NSR: 3 from laboratory reports and one from a conference. The savings in duplicated effort will allow more time to be devoted to data compilation. Existing CINDA entries will remain in the database until such time as they are documented to exist in the NSR database.

For older references, the coverage in NSR is not as good. The NNDC will provide a program to be used in checking which CINDA theory entries exist in NSR and will ask for help in entering those which are not in NSR.

Those documents which exist or are entered in NSR will then be deleted from the CINDA database.