



International Atomic Energy Agency

New NRDC Webpage
WP 2008-16

http://www-nds.iaea.org/nrdc/nrdc_2008/working/wp2008-16.pdf

N. Otsuka

First NRDC Web page (2000~)

About Cinda

CINDA, the Computer Index of Nuclear Data, contains bibliographic references to and other microscopic reaction data, as well as photo-neutron, photo-fission, and numerical reaction data available from four regional reaction data centers.

References relating to the same work are blocked. Also blocked with the reference ENDF/EVA notations which contain data associated with the reference.


The compiler of CINDA is the result of worldwide cooperation involving the following:

- The USA National Nuclear Data Center at Brookhaven National Laboratory,
- The Russian Nuclear Data Center at the FIAN (Energoinstitut) Institut, Obninsk,
- The NEA Data Bank at Paris, France
- The IAEA Nuclear Data Section at Vienna, Austria

Connect to CINDA:

Center
National Nuclear Data Center (NNDC)
NEA Data Bank
IAEA Nuclear Data Section

David comments to V. Pronyaev at v.pronyaev@iaea.org (Last revision 12 April 2000)



About EXFOR/CISRS

The experimental nuclear reaction database, known as EXFOR or CISRS (Cross Section and Bibliographic Information), as well as experimental information about the data. The set of the data set is also included.

The data presently included in the EXFOR and CISRS databases include:

- a "complete" compilation of experimental neutron-induced reaction data,
- a selected compilation of charged-particle-induced reaction data,
- a selected compilation of photo-induced reaction data.

The data is compiled in the [EXFOR format](#), which was originally conceived for the exchange of nuclear reaction data. The format is designed for flexibility in order to meet the diverse needs of experimental data tables with explanatory and bibliographic information to be transmitted in a file.


- that is machine-readable for checking and replacing possible errors,
- that can be read by personnel (for passing judgments on and correcting errors)

In addition to the EXFOR format, users may obtain data from the centers in other convenient formats, each center's own sphere of responsibility.

Connect to EXFOR/CISRS:

Center	URL
National Nuclear Data Center (NNDC)	USA and Canada
NEA Data Bank	Data Bank, International
IAEA Nuclear Data Section	All Others

v.schwerner@iaea.org (Last revision 14 February 2000)



Nuclear Reaction Data Center Network (NRDC)

The Nuclear Reaction Data Center Network (NRDC) is a world-wide cooperation of nuclear data centers, under the auspices of the International Atomic Energy Agency, established to coordinate the collection, compilation, and dissemination of nuclear data on international scale.

Dissemination of nuclear data and associated documentation to users is the primary goal of the network. In order to accomplish this goal, the following specific tasks are carried out:

- Compilation of experimental nuclear data ([EXFOR/CISRS](#)) and bibliographic information ([CINDA](#))
- Collection of evaluated nuclear data ([ENDF/EVA](#))
- Exchange of nuclear data of all types among the data centers;
- Promotion of the development of special purpose evaluated data files;
- Development of common formats for computerized exchange of nuclear data;
- Coordinated development of computer software for managing and disseminating nuclear data;
- Documentation of current and future data needs in order to be able to meet changing user demands.

There are currently 13 data centers active in the Network: 4 "Core Centers" and 9 specialized data centers.


Related documentation

- [Nuclear Reaction Data Center Network](#), ed. by V.G. Pronyaev and G. Schwerner (Paris, August 2000).
- [Nuclear Reaction Data Center Network of Nuclear Reaction Data Centers](#), Brookhaven, USA, 4 - 7 October 2004, prepared by G. Schwerner and H. Hertenstein (January 2005)
- [Technical website materials and related meeting report](#)

Core Nuclear Data Centres

The network provides worldwide customer services covering the entire range of nuclear data services. Data compiled and collected at these sites and, therefore, the databases residing at these centers are, essentially, identical in content (with a small time delay).

Center Name	Email	Service Area
NNDC Brookhaven, NY, USA	nnndc@bnl.gov	United States and Canada
NEA Data Bank	neadba@iaea.org	NEA member countries worldwide
IAEA Nuclear Data Section	iandsec@iaea.org	IAEA member countries not covered by the other 3 core centers
Institute of Physics and Power Engineering	iaep@ipp.ac.cn	Coastal of the former Soviet Union



by V.McLane, O.Schwerner, V.Pronyaev,...

New IAEA-NDS Webpage (June, 2008)



Common tools
(java script etc.) for
NDS web service
by Victor Zerkin
(See WP 2008-29)



New NRDC Webpage (May, 2008~)

The screenshot shows the NRDC website interface. The main header includes the IAEA logo and the text "Nuclear Data Services". The central content area features the NRDC logo and the title "International Network of Nuclear Reaction Data Centres (NRDC)". Below this, there are sections for "What is NRDC?", "Objectives and Tasks", and a table of "Core Centres".

Callouts from yellow speech bubbles point to specific areas of the page:

- Links to databases:** Points to the "A Databases" menu on the left, which lists EXFOR, CINDA, and ENDF/EXA.
- Links to manuals and archive:** Points to the "B Documents" menu on the right, which lists Network Document, EXFOR/EXAS, EXFOR Formats, JENDL, NRDC Protocol (Draft), EXFOR/CINDA, Databases, CINDA/EXA Manual, ENDF-6 Formats, and More Documents.
- Links to Centres:** Points to the "C Centres" menu on the left, which lists various national and international data centres such as INDC (USA), IAEA (Vienna), NDS (Australia), CIO (France), CINDA (China), ATOMKI (Hungary), JONKI (Japan), JAEA (Japan), KINS (Korea), IANR (Russia), COFE (Russia), CNPC (Russia), and IANRDC (Korea).
- Links to NRDC meetings:** Points to the "D Meetings" menu on the right, which lists various meetings from 2000 to 2007, including INDC, EXFOR, and CP meetings.
- Links to CP memo:** Points to the "E Memos" menu on the right, which lists various memos such as Memo 4C-1 (INDC), Memo 4C-2 (INDC), Memo 4C-4 (ICRP), Memo CP-A (ICRP), Memo CP-C (NRDC), Memo CP-D (INDC), Memo CP-E (ICRP), Memo CP-F (ICRP), Memo CP-H (ICRP), and Memo CP-H (IAEA-DB).

The "Core Centres" table at the bottom of the page is as follows:

Country	Centre	Joined
U.S.A.	US National Nuclear Data Center Brookhaven National Laboratory, Upton, NY	1966
France	CEC/NEA Data Bank Tray-lès-Plessis	1966
Austria	IAEA Nuclear Data Section Vienna	1966
Russia	Russian Nuclear Data Center Institute of Physics and Power Engineering, Obninsk	1966

Links to databases

Links to manuals and archive

Links to Centres

Links to NRDC meetings

Links to CP memo

The texts of main part (e.g. objectives) are copied from the previous version.

Screen Shot (EXFOR)

Links to databases maintained by NRDC centres (6)

EXFOR

The experimental nuclear reaction database, known as EXFOR stores nuclear reaction data and its' bibliographic information, as well as experimental information about the data. The status (e.g., the source of the data), and history (e.g., date of last update) of the data set is also included.

The data presently included in the EXFOR databases include:

- a "complete" compilation of experimental neutron-induced reaction data,
- a selected compilation of charged-particle-induced reaction data,
- a selected compilation of photon-induced reaction data.

The data is compiled in the EXFOR format, which was originally conceived for the exchange of neutron data, and was further developed and adapted to cover all nuclear reaction data. The format is designed for flexibility in order to meet the diverse needs of the nuclear reaction data centres, and allows a large variety of numerical data tables with explanatory and bibliographic information to be transmitted in a format:

- that is machine-readable (for checking and indicating possible errors),
- that can be read by personnel (for passing judgement on and correcting errors).

In addition to the EXFOR format, users may obtain data from the centres in other centre-to-user formats that have been developed to meet the needs of users within each centre's own sphere of responsibility.

Links to EXFOR Services

Centre	URL
NNDCC (USA)	http://www.nndc.bnl.gov/exfor/
NEADB (France)	http://www.nea.fr/html/dbdata/x4/
NDS (Austria)	http://www-nds.iaea.org/exfor/
CJD (Russia)	http://www.ippe.obninsk.ru/podr/cjd/page4_9_cjd.html
JCPRG (Japan)	http://www.jcprg.org/exfor/
CDFE (Russia)	http://cdfe.sinp.msu.ru/exfor/index.php

The description of EXFOR is copied from the previous version.

Screen Shot (CINDA)

CINDA

CINDA, the Computer Index of Nuclear Reaction Data, contains bibliographic references to measurements, calculations, reviews, and evaluations of nuclear reaction cross-sections and other microscopic nuclear reaction data, as well as spontaneous fission data; it also includes index references to computer libraries of numerical nuclear reaction data.

References relating to the same work are blocked. Also blocked with the reference lines are data index lines, i.e., references to the EXFOR data sets and ENDF/EVA materials which contain data associated with the reference.

Links to CINDA Services

Centre	URL
NNDC (USA)	http://www.nndc.bnl.gov/cinda/
NEADB (France)	http://www.nea.fr/cinda/
NDS (Austria)	http://www-nds.iaea.org/cinda/
CJD (Russia)	http://www.ippe.obninsk.ru/podr/cjd/page4_10_cjd.html

Links to
databases
maintained
by NRDC
centres (4)

Screen Shot (Documents – Manuals etc.)

Latest versions

Documents and Archives

Documents

Number	Title	Editor	Date
INDC(NDS)-0401	Nuclear Reaction Data Centres Network	V.G.Pronyaev, O.Schwerer	2003-08
IAEA(NDS)-0206	EXFOR Formats Description for Users (EXFOR Basics)	O.Schwerer	2008-06
IAEA(NDS)-0207	EXFOR Exchange Formats Manual	O.Schwerer	2008-02
IAEA(NDS)-0208	LEXFOR (EXFOR Compiler's Manual)	O.Schwerer	2008-02
IAEA(NDS)-0213	EXFOR/CINDA Dictionary Manual	O.Schwerer	2008-02
BNL-NCS-63381	Citation Guidelines for Nuclear Data Retrieved from Databases Resident at the Nuclear Data Centres Network	V.McLane	2003-06
(no number)	CINDA2001 Manual	H.Henriksson	2008-02
(no number)	Protocol for Cooperation between the Nuclear Reaction Data Centers	O.Schwerer	2004-12
(no number)	CINDA Reader's Manual	M.Kellett	2003-04

Previous versions

Archives

Number	Title	Editor	Date
IAEA(NDS)-0207	EXFOR Systems Manual	V.McLane	2001-04
IAEA(NDS)-0207	EXFOR Exchange Formats Manual	O.Schwerer	2004-08
IAEA(NDS)-0208	LEXFOR (EXFOR Compiler's Manual)	V.McLane	2001-05
IAEA(NDS)-0208	LEXFOR (EXFOR Compiler's Manual)	V.McLane	2006-01
IAEA(NDS)-0213	EXFOR/CINDA Dictionary Manual	O.Schwerer	2007-08
IAEA(NDS)-0350	The Nuclear Data Centres Network	H.D.Lemmel	1997-03

(Useful when we analyse old files compiled with old manuals.)

Screen Shot (NRDC Meetings)

Links to meeting report

Links to progress reports

Links to working papers

NRDC 2007

IAEA Headquarters, Vienna, Austria
(8-10 October 2007)
Scientific Secretary: S.Dunaeva

Proceedings

[INDC\(NDS\)-0519](#) (Editor: O.Schwerer and S.Dunaeva)

Progress Reports

Centre	Type	Size (kb)
NNDC (Brookhaven, USA)	-	-
NEADB (Paris, France)	doc	137
NDS (Vienna, Austria)	doc	311
CJO (Obninsk, Russia)	doc	42
CNDC (Beijing, China)	-	-
ATOMKI (Debrecen, Hungary)	doc	39
JCPRG (Sapporo, Japan)	doc	410
JAEA (Tokai-mura, Japan)	-	-
KAERI (Taejon, Korea)	doc	62
CAJaD (Moscow, Russia)	doc	54
CDFE (Moscow, Russia)	doc	94
CNPD (Sarov, Russia)	doc	33
UkrNDC (Kyev, Ukraine)	doc	67

Working Papers

Number	Title	From	Type	Size (kb)
WP2007-1	Conclusions and Actions of the 2006 NRDC Meeting		pdf	63
WP2007-2	Plotting flags in Archive Dictionary 24 (Data headings)		pdf	189
WP2007-3	Procedure for correcting mistakes in the central EXFOR master file		pdf	29

Screen shot (Memos)

Memo 4C-4

Russian Nuclear Data Center (CJD)

No.	Type	kb	Date	Subject	Status
172	doc	33	2008-09-18	Working paper to NRDC2008	-
171	doc	30	2008-02-11	New codes for: Preprint (Dictionary 6)	9097
170	doc	49	2007-10-05	Progress Report to NRDC2007 Technical Meeting	-
169	doc	31	2007-09-28	New codes for:Institute (Dictionary 3), Data Headings (Dictionary 24)	withdrawn
168	doc	28	2007-08-15	New codes for Errors (Dictionary 24)	9096
167	doc	30	2006-12-22	New codes for Errors (Dictionary 24)	
166	doc	31	2006-11-23	Reply to Memos CP-E/104 and CP-D/476	
165	doc	25	2006-05-11	New code for Dictionary 36 (236)	
164	doc	31	2006-05-04	New code for Dictionary 24	
163	doc	28	2005-09-28	New code for Diction 7:	
162rev	doc	28	2005-09-30	New code for Dictionary 3	
161	doc	29	2005-07-08	New code for Diction 36	
160	doc	28	2005-06-05	New code for Dictionary 3	
159	doc	28	2005-06-03	New code for Diction 36	
158	doc	29	2005-02-18	New code for Diction 7: Books & Conferences	
157	doc	29	2005-02-18	New code for Diction 36	
156	doc	27	2005-01-13	New code for Diction 20	
155	doc	27	2004-12-12	Addition for Dictionary 36	
154rev	doc	29			
153rev	doc	27			
152	doc	27			
151	doc	29			

(Retroactive input of date and subject is in progress
- by L. Vrapcjenjak)



The last column gives the status of proposed new codes.

Example:

“9097”
added in
TRANS.9097

“-”
No new codes
proposed in the
memo

“discuss”
To be discussed
in the next meeting

Previous Versions and NRDC Logos



International Network of Nuclear Reaction Data Centres (NRDC)

(To [previous NRDC Home / NRDC Internal Archive](#))

What is NRDC?

The International Network of Nuclear Reaction Data Centres (NRDC) constitutes a worldwide cooperation of nuclear data centres under the auspices of the International Atomic Energy Agency. The Network was established to coordinate the world-wide

Access to the previous version (updated no longer)

Designed by Viktor Zerkin



Send me your comments when

- **link to your centre should be updated;**
- **link to your EXFOR/CINDA database should be added / updated;**
- **and any other comments / suggestions.
(New logo etc...)**

END