

CINDA READER'S MANUAL	
	May 1997

CINDA READER'S MANUAL

May 1997

This manual replaces all previous issues of the CINDA Reader's manual.

The manual is in three parts :

- Section I General summary for everyday use by Readers.
- Section II Detailed specifications and instructions for coding
- Section III Dictionaries of CINDA quantities, laboratory and reference codes.

The manual is distributed in loose-leaf form, allowing modifications to be made by replacement and inclusion of pages as is the current fashion in EXFOR. Modifications can be made on request or following suggestions of CINDA Readers after discussion and agreement by the 4-Centre network of Nuclear -Data Centres (NEA-DB, CJD, NDS, NNDC). Suggestions should be sent to NEA-DB for circulation.

Revised by : M. Konieczny
May 1996

CINDA READER'S MANUAL	
	May 1997

COMPUTER INDEX TO NEURON DATA

CINDA MANUAL

CINDA READER'S MANUAL	
	May 1997

LEGAL NOTICE

Neither the Organisation for Economic Co-operation and Development, any of its Member Countries, or their agencies, nor any person or organisation acting either on behalf of any of them or otherwise in the development, compilation, publication or distribution of the information in this report:

makes any warranty or representation, expressed or implied, with respect to the accuracy, completeness, or usefulness of the information which it contains, or that the use of any information, apparatus, method, or process disclosed may not infringe privately-owned rights; or

assumes any liabilities with respect to the use of, or for damage resulting from the use of, any information, apparatus, method or process disclosed.

The NEA Data Bank is part of the Organisation for Economic Co-operation and Development and is financed by the following eighteen Member Countries:

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Japan, Mexico, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CINDA READER'S MANUAL	
	May 1997

Introduction

The scope of CINDA is limited to publications giving information about nuclear reactions initiated by a neutron-nucleus collision. Primarily this includes neutron scattering, neutron capture, fission, and other reactions producing charged particles or neutrons, but a few other categories of information of interest to reactor physicists have been included : scattering of neutrons by bound atoms, some photon-induced reactions, and spontaneous fission.

CINDA is a computerised file, identical copies of which are maintained by the four cooperating Neutron Data Centres. These master files are simultaneously updated by means of an exchange mechanism between the centres. Input to the file is made periodically in the form of CINDA entries coded by indexers at the data centres or, in the case of NEA-DB, also by a network of external readers, from scanning of current literature. Each entry contains coded information on nuclear reaction, target material, laboratory, reference, neutron energy range and a few brief comments. This information is tested on input to the file for formal irregularities. This manual is intended to provide a complete and intelligible guide to CINDA indexers for correct coding of relevant articles.

CINDA centres may change old and introduce new compiler symbols and codes for laboratories or references belonging to their service area. The codes for labs and references must be in accordance with the coding rules set up in the EXFOR manual, pages 7.11 (institute codes) to 7.13 and with the special rules for CINDA as stated in part II.10 for references. They must be communicated to the other centres prior to the exchange of the respective CINDA entries.

For changes to and introduction of other codes and changes to coding rules the agreement of all four CINDA centres is required.

Warning: Within the CINDA system, various formats exist for the storage, exchange and publication of CINDA entries, which differ from the "Reader format" for coding of entries. In particular, the codes given in the CINDA book may be different from the input format. Therefore, no other codes except those permitted in this manual should be used for the coding of entries.

CINDA READER'S MANUAL	I.1.1
Summary of CINDA entry format	May 1997

I Summary of CINDA entry format

Record field	Coded information	Detailed specifications
1	TARGET Single isotope Inverse reactions Mixtures of elements Chemical compounds	II.1
2	REACTION QUANTITY	II.2
3	LABORATORY	II.3
4	BLOCK NUMBER	II.4
5	READER CODE	II.5
6	OPERATION CODE	II.6
7	HIERARCHY CODE	II.7
8	WORKTYPE	II.8
9	NEUTRON ENERGY	II.9
10	REFERENCE	II.10
11	AUTHOR NAME AND COMMENTS	II.11
	CINDA EXCHANGE FORMAT SPECIFICATIONS	II.12

CINDA READER'S MANUAL	I.1.2
Summary of CINDA entry format	May 1997

BRIEF GUIDE TO CODING

TARGET columns 1 - 5

Z	columns 1 - 2	Single element specification.
A	columns 3 - 5	Single isotopes and mono-isotopic elements. Leave blank for natural multi-isotope elements.

Alternative Codes

CMP	columns 3 - 5	Chemical compounds other than those with special codes. Enter Z of principal element
MANY	columns 1 - 4	References with many target elements.
FPROD	columns 1 - 5	Unseparated fission products.

Hydrogen isotopes are coded as H 002, and H 003. The target isotope should be coded even when the reference is to properties of the compound nucleus (resonance parameters, fission barriers, capture gamma spectra).

CROSS SECTION columns 6 - 8

Coded information on reaction type and measured property. See Section II.2 for a list of codes. Follow the convention of least Z for light particle products.

LABORATORY columns 9 - 11

Enter the code for the laboratory of the principal authors; see Section II.3 for ambiguous cases.

BLOCK NUMBER columns 12 - 14

Leave blank for new entries unless you wish two or more entries to be blocked together : Section II.4.

CINDA READER'S MANUAL	I.1.3
Summary of CINDA entry format	May 1997

READER **column 15**

Enter your Reader number or letter.

OPERATION **column 16**

BLANK	Entries for work in other service areas
A	New entries in the reader's service area
B	To block a new entry with existing entries
M	To modify an existing entry
D	To delete an existing entry
L	To link two blocks together
K	To destroy an existinz block.

HIERARCHY **column 17**

Usually blank giving a default hierarchy 3, but a code may be used if appropriate.

M	Main references - definitive publications
T	Translations
N	Progress reports, abstracts, etc., not to appear in the book after blocking with a complete report.
D	Data index entries.

WORKTYPE **column 18**

D	Evaluations
C	Compilations
E	Experimental measurements
T	Theoretical calculations
M	Mixtures of experimental and theoretical work

CINDA READER'S MANUAL	I.1.5
Summary of CINDA entry format	May 1997

ENERGY columns 19 - 26

Lower and upper neutron energy limits in eV. The format is mantissa times exponent, e.g., 3 MeV 30+6. The decimal point is included implicitly between columns 19 and 20, and between 23 and 24. Single energy values in columns 19-22 ONLY.

The following alphabetic codes are also allowed :

NDG	No energy information given
MAXW	Average over a maxwellian spectrum
COLD	Unspecified energy average below 1 eV
FISS	Average over a fission produced neutron spectrum
PILE	Average over a Thermal reactor neutron spectrum
FAST	Average over a Fast reactor neutron spectrum.
SPON	Spontaneous fission
TR UP	From threshold upwards ("TR" in columns 19 & 20, "UP" in columns 23 and 24)

For details and combinations of codes see Section II.9.

REFERENCE columns 27 - 44

Reference type column 27

J	Jour	Journal
*	Abst	Abstract in journal or conference
C	Conf	Conference : published proceedings or separate papers
S	Conf	Conference proceedings published as a laboratory report
R	Rept	Laboratory report
P	Prog	Progress report, usually contains short notes on many different projects
B	Book	Book. Rarely used
T	Diss	Thesis
W	Priv	Private Communication
(zero)	O	Data EXFOR entry exists but numerical data are not available
4	Data	Numerical data exchanged in EXFOR format
3	Data	Other tape files available (at present, only evaluations)

Reference code columns 28 - 41

Use reference code according to EXFOR

Dictionary	5	for journals
	6	for reports
	7	for books and conference

For coding of volume, issue and page number, see Section II.10.

CINDA READER'S MANUAL	I.1.5
Summary of CINDA entry format	May 1997

Reference date columns 42 - 44

month in column 42 (1 - 9 for June - September,
0 = October (letter or zero)
N = November
D = December
blank = unknown)

year (last 2 digits) in columns 43 - 44

COMMENT columns 45 - 80

Name of the first author followed by a stop '.' for a single author, or a plus '+' for more than one author. The abbreviated free text following the author name should specify :

Formula of chemical compound if code is ambiguous

Some indication of experimental method used, e.g. VDG,LINAC

Status of experiment, e.g.,

TBD	to be done
TBC	to be completed
TBP	to be published
PRELIM	preliminary results

In what form the data are given, e.g. :

NDG	No data given
TBL	Table
CURV	Curves
GRPH	Graph

Further data specification if necessary, e.g.,

ANGDIST	angular distribution
Cross section to metastable state	
Specific isotopes in fission yields.	

Abbreviations should be intelligible to users whose mother language is not English. See pages II.11.2 - II.11.4.