Note: Unless indicated otherwise, the quoted data, documents or codes are available costfree upon request. When requesting data on magnetic tape, kindly specify the acceptable density (1600 or 6250 bpi), maximum block size, and whether the data should be in EBCDIC or ASCII code. Only 9 track tapes are used. Not too large data files or computer codes can also be sent on DOS standard diskettes (either 5.25 inch, 1.2 Mb or 3.5 inch, 1.44 Mb).

News on tape density: The IAEA Computer Centre does no longer have a tape drive that writes tapes at 800 bpi. Therefore, requests for tapes at 800 bpi can no longer be fulfilled. Only in exceptional cases when the requestor has really no access to a 1600 bpi tape drive, we may find a way to provide tapes at 800 bpi.

Data indexes and bibliographies

CINDA-89: The bibliography and data index for microscopic neutron data available for a sales price of 1080,- Austrian Schillings. It covers the period 1982-89 and supplements the books CINDA A (1935-1976) and CINDA B (1977-1981). Note: CINDA like other priced IAEA publications can be bought either directly from the IAEA, Division of Publications, or for local currency by means of UNESCO coupons which can be obtained at the UNESCO office of your country. Furthermore, it can be obtained at half the nominal price when ordered through the Permanent Mission of your country to the IAEA in Vienna. A complete CINDA issue is planned to be published in 1990.

CINDA computer retrievals on specific nuclides or quantities are available costfree upon request.

Nuclear Data Section (NDS)                   e-mail: RNDS@IAEA1
International Atomic Energy Agency          fax: (43-1)234564
P.O. Box 100                                 cable: INATOM VIENNA
A-1400 Vienna                                telex: 1-12645 atom a
Austria                                     telephone: (43-1)2360-1709
Integral Charged-Particle Nuclear Data Bibliography, BNL-NCS-51771 first
1989, by the US National Nuclear Data Center. Few copies available
costfree. Also available as computer file costfree upon request.

EXFOR Index. Exfor is the international data file for experimental nuclear
reaction data. Retrievals are available upon request. For information on
the contents of this data file, the EXFOR Index File is available on
magnetic tape. A subset of this file restricted to charged-particle
induced and photon-induced nuclear reactions has been published by
P.E. Chukhreva, V.V. Varlamov et al. This index book is in Russian, however
explanations are given in English only.

Fotonedernye Dannye – Photonnuclear Data, a bibliographic index on the
photofission of nuclei covering the period 1952-1988, by the USSR
Photonnuclear Data Center (V. Varlamov et al). Costfree.

IAEA-NDS-7 (Rev. 90/1): Index of data libraries available on magnetic tape
from the IAEA Nuclear Data Section, H.D. Lemmel (ed.).

IAEA-NDS-0 (Rev. 90/1): Index to the IAEA-NDS-Documentation Series.

New data libraries received

BROND. Supplements and revisions to the USSR evaluated neutron reaction
data library BROND have been received and collected in the file BROND-NDS2.
This includes data for the isotopes of H, He, Li, Cr, for natural Fe,
Nb-93, U-235 and Pu-241. Whereas the first file BROND-NDS1 is in ENDF-5
format, the present file BROND-NDS2 is in ENDF-6 format. Both BROND files
together are documented in the report IAEA-NDS-90 Rev.2.

"ACTIVS!": Fast Neutron Activation Cross-Section File by V.N. Manchkin,
A.B. Paschenko, V.I. Pliaskin, V.M. Bychkov, V.C. Pronzaev. This library
contains evaluated cross-sections for 206 important fast-neutron induced
activation reactions in the energy range from threshold up to 20 MeV. This
file contains the numerical data of the graphical plots that had been
published in the IAEA Handbook on Nuclear Activation Data (K. Okamoto,
of this data library is given in the report IAEA-NDS-96 (O. Schwerer, ed.).

"ACTIVF/H": Neutron activation cross-section library for fusion reactor
design. 284 reactions on 58 nuclides (zero to 20 MeV) selected from the
Hanford REAC*2 data library, in ENDF-6 format. Documentation and
graphical plots by V. Gnulo, document IAEA-NDS-114.

Chinese neutron activation cross-sections. A compilation and evaluation
of data for 58 fast neutron activation reactions of interest to nuclear technol-
ogy applications is contained in the report INDC(CPR)-16 by Shao Wenrong
et al. Included are: tables of experimental data measured at the Institute
of Atomic Energy, Beijing; tables of evaluated data; graphical plots.

Delayed fission gamma-ray spectra from U-235, 238, Pu-239, 240, 241. Calculated
data by T. Yoshida. Tabular data in the report JAERI-M-80-037. (If data are
requested on magnetic tape, we will try to obtain them).

Nuclear Wall Chart

A new nuclear wall chart has been issued by the General Electric Company,
USA. As in earlier issues it contains in a graphical form all isotopes of
all elements, including for stable isotopes the abundance and thermal
neutron cross-section, or for unstable isotopes the half-life and decay
mode, as well as other information. The wall chart (measuring 72 cm x 130
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Handbooks


Charged-particle induced monitor reactions for radioisotope production, a status report with tables and graphical plots of cross-sections. O. Schwerer, K. Okamoto. INDC(NBS)-218. Costfree.


IAEA Yearbook 1989. Summary: The Yearbook provides descriptions of the IAEA's major programmes, with articles on particular projects and areas of activity, together with reports of particular current interest and general information about the IAEA. The Yearbook presents the work of the IAEA in the context of scientific, technical and economic developments worldwide. Contents: Foreword by the Director General; the IAEA's Contribution to Sustainable Development; Part A - Transfer of Nuclear Technology; Part B - Applications of Nuclear Techniques; including a chapter on the IAEA nuclear data program; Part C - Nuclear Power and Fuel Cycle: Status and Trends; Part D - Nuclear Safety Review; Part E - IAEA Safeguards; Part F - the IAEA. - Available for a price of 560.- Austrian Schillings. Parts A (110.- AS), B (110.- AS), C (140.- AS) and D (150.- AS) are also available separately.
How to obtain priced IAEA publications see above under CINDA-90. You may subscribe to costfree information on new IAEA publications by writing to the IAEA Division of Publications, P.O. Box 100, A-1400 Vienna, Austria.

Meeting Proceedings
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(Limited number of copies available costfree upon request.)


First International Kiev Conference on Neutron Physics. Kiev, USSR, 14-18 Sept. 1987. 4 vols, publ. Moscow 1988, B.D. Kuzminov (ed.). 35 papers in English, 261 papers in Russian with English abstracts. (Note that neither titles nor an index are given in English, nor are the author names given in English transliteration).


Conference of the International Nuclear Target Development Society, Darmstadt, FRG, 5-9 Sept. 1986. The proceedings have been published in NucI.Inst. & Meth. in Phys.Res. A282 (1989) p. 1-373 (not available from IAEA). At the same time and place an IAEA meeting was held on "The influence of target and sample properties on nuclear data measurements"; a summary report is available as report INDC(WUS)-213.


Announcement
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The next International Conference on Nuclear Data for Science and Technology will be in Jülich, Fed. Rep. of Germany, 13-17 May 1991. For information contact Ms. Renate Mengels, P.O. Box 1913, D-5170 Jülich, FRG.
Yadernye Konstanty

The series "Yadernye Konstanty" (Nuclear Constants), in Russian language with abstracts in English, appears in 4 issues per year. It contains papers in the fields of 1. neutron data, 2. nuclear structure data, 3. nuclear reactor data. Copies of the original issues are available on request. English translations of selected papers are contained in the following reports:

**IMDC(CCP)-302.** Translations from Yad. Konst. 1986-4. Neutron data evaluation activities of the USSR Nuclear Data Centre (Manokhin). Evaluation of nuclear data for heavy fission nuclei (Konshin). Absolute measurements of fission cross-sections for important nuclides (Shpakov). Measurements and analysis of radiative capture cross-sections of Hp and U isotopes (Tolstoi). Consistent evaluation of neutron cross-sections for the Cm isotopes 242-244 (Ignatjuk). Re-evaluation of the neutron cross-sections for iron (Pronjav). Evaluation of fission cross-sections for Cm isotopes for fast neutrons (Fursoy).


Selected new publications on nuclear data

* = document available costfree from IAEA/NDS upon request
- = available from originator

International Nuclear Data Committee

* IND(C)DS-219. Report of the IAEA Nuclear Data Section to the
International Nuclear Data Committee. A. Lorenz (ed.)

* IND(C)DS-34. Progress report (April 1988 to March 1989) on nuclear
data activities in the Federal Republic of Germany. Also earlier
issues are still available: IND(C)DS-32 for the period April 1987 to
March 1988, and IND(C)DS-30 for the period April 1986 to March 1987.

* NEANDC(E)-302. Annual progress report on nuclear data 1988 by the
C.E.C. Central Bureau of Nuclear Measurements, Geel.

* IND(C)DS-100. Stable isotope research pool inventory at Oak Ridge.

* IND(C)DS-97. IND list of correspondents for the exchange of nuclear
data information, and compilation of national nuclear data committees.

* IND(C)DS-98. Index of recent IND(C)DS and single copy documents
received.

\textbf{WRENDA}

* IND(C)DS-95. WRENDA 87/88. World Request List for Nuclear Data.
Wang Dahai (ed.). This document lists nuclear reactions, mostly
neutron reactions but also charged-particle reactions or half-lives,
for which existing data have insufficient accuracy as to meet the
requirements in the physics of fission reactors, nuclear material
safeguards, thermonuclear fusion, and other applications. The requests
included were submitted by official bodies such as national nuclear
data committees and serve as a guide to nuclear physicists and admin-
istrators when planning nuclear data measurement and evaluation programs.

\textbf{Evaluated neutron nuclear data}

* JAERI-M-89-046. Evaluation of neutron nuclear data of B-11 for
JENDL-3. T. Fukahori.

T. Fukahori.

* IAEA-NDS-97. ENDF/B-3 scattering law library. This rather old data
library is still in wide use, and this document contains a reprint of the
reference manual for this data library issued by J.U. Koppel and
(1978).

* IND(C)DS-215. Nuclear data for structural materials of fission and
fusion reactors. Summary of a research co-ordination meeting, Vienna,

* IND(C)DS-1. Plans for use of ENDF/B in reactor research in
Indonesia. Budi Santoso, S. Ganesan et al.

\textbf{Codes}

* IND(C)DS-31. Evaluation of the codes ENDF-3Q, ENDF-3, FLANGE-3,
FLANGE-IX, XLACS, NJOY and LINEAR/RECENT/GROUPIE in relation to
resonance contributions and background collision cross-sections.
J. Anaf and G.S. Chalhoub.

* IND(C)DS-16. FEQAC: A PC version of fully pre-equilibrium computer
code with gamma-emission. E. Bőták.

* IND(C)DS-12. Data acquisition and reduction system DARS at Bratislava.
M. Morháč et al.
Nuclear Theory

* INDC(BZL)-13. Analysis of neutron optical potential for A=40-60 below 10 MeV. Su Zongdi.
* INDC(CSR)-14. Pre-equilibrium decay calculations based on the realistic level scheme. E. Beták et al.
* INDC(GDR)-55. Global description of (n,p) and (n,2n) activation cross-sections within statistical multipstep theory. H. Kalka et al.
* INDC(GDR)-056/L. Prompt neutron emission in nuclear fission. D. Seeliger et al.
* INDC(VMN)-6. Pre-equilibrium emission of protons and isotopic effect in the fast neutron induced (n,p) reactions on heavy elements. Hien P.Z.

Experimental neutron reaction data

* CEA-R-2506. Diffusion élastique et inélastique de neutrons sur N-14 entre 7.7 et 13.5 MeV. J. Chardine et al.
* INDC(CCP)-290. Spectra of inelastically scattered neutrons with an initial energy of 14.1 MeV and nuclear level density. O.A. Salnikov et al.
* INDC(CCP)-301. Neutron leakage spectra from Be, Pb and U spheres at 14 MeV. A.A. Andrenkov et al. Thermonuclear reactors and nuclear data requirements. D.V. Mackovskij et al.
* INDC(CCP)-305. Study of structure in the Al-27(n,a) reaction cross-section. N.V. Kornilov et al.
* INDC(CSR)-13. Gamma-ray production cross-sections for Cr-52 (n,\gamma) at 14.6 MeV. P. Obolezinsky et al.
* INDC(GDR)-50/L. Influence of atomic, molecular and solid state effects on the neutron resonance cross-section. K. Seidel et al.
* INDC(GDR)-52/G. Absolute measurements of the U-238 fission cross-section at 4.8, 6.4 and 18.8 MeV neutron energies. K. Merla et al.
* INDC(NDS)-224. Neutron leakage from Pb and Be spherical shells with a central 14 MeV neutron source. Integral experiment on transmission of 14 MeV neutrons in a FeBe assembly. S. Antonov (NRCU Bulgaria) et al.
* INDC(PAK)-7. Induced radioactivities and cross-section measurements of the 14 MeV irradiated Mo foils. K. Gul et al.
* JAERI-M-89-089. Measurements of gamma-ray production nuclear data of Ca and Cr. H. Igashira. In Japanese, with abstracts and captions to tables and figures in English.
* JAERI-M-89-107. Measurements of differential cross-sections for the (n,d) and (n,t) reactions on Li-6 and Li-7 at 14.1 MeV. S. Shirato.
Actinides and Fission-Products
- Actinide Newsletter. Issued annually with world-wide collected progress reports on actinide nuclear data: data needs, data measurements, data evaluation, data applications. Contact the editor: S. Raman, Physics Division, Oak Ridge National Laboratory, P.O. Box 208, Oak Ridge, USA-37831.
  * INDC(CCF)-307. Parametrization of mass curve of neutron-induced actinide fission-products. A.A. Gouverdovsky.

(p,n) and (alpha,n) Reactions
  * INDC(GER)-31. Angle and energy differential cross-sections for the (p,n) reactions of 25.6 MeV protons with Mo isotopes. E. Mordhorst.
  * INDC(GER)-33. Double differential cross-sections for the (p,n) reactions of 13.1 MeV protons with Mo isotopes. T. Bröer et al.

X-Rays and Gamma-Rays
  * INDC(CCP)-278. Characteristics of x-ray transitions in multiply charged ions of Ar, Cl, K. R.S. Kiselev et al.
  * INDC(CCP)-309. The operation research as an instrument for analysis and planning of nuclear spectroscopic experiment. (Example: Pu-239 decay). F.E. Chukreev.

Radiotherapy

Neutron Dosimetry and Radiation Damage
  * INDC(CCP)-282. Accuracy of neutron spectrum unfolding in fusion reactor blankets. M.A. Berezinis et al.