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IAEA Nuclear Data Section (NDS)  
P.O. Box 100, A-1400 Vienna, Austria

Note: The quoted data, documents or codes are available costfree upon request (unless indicated otherwise).

#### Nuclear Data Standards

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A handbook on "Nuclear Data Standards for Nuclear Measurements" was published in the IAEA Technical Reports Series No. 227 (1983), 98 pages. It contains the 1982 version of the international Nuclear Standards File maintained and updated under the auspices of the International Nuclear Data Committee (INDC) and the OECD/NEA Nuclear Data Committee (NEANDC). The handbook has a salesprice of 240.- Austrian Schillings. A limited number of copies is available free of charge to scientists in developing countries.

A meeting on Nuclear Standard Reference Data will be held in Geel, Belgium, 12-16 November 1984. Information about participation and submission of papers can be obtained upon request.

#### WRENDA 83/84

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The updated World Request List for Nuclear Data Measurements, WRENDA 83/84, has been issued as report INDC(SEC)-88 (superseding the earlier issue INDC(SEC)-78). 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 materials safeguards, thermo-nuclear 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 administrators when planning nuclear data measurement and evaluation programs.

New data libraries received  
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EXFOR: This file of experimental nuclear reaction data is updated frequently. Data producers are requested to submit their experimental results without delay. Data users are invited to submit their data requests with clear retrieval specifications. - EXFOR includes data for reactions induced by neutrons, charged particles, heavy ions, and photons. For neutron data the compilation is supposed to be complete. For charged-particle and photonuclear data we are interested to obtain information about data needs for applications in order to determine compilation priorities.

INDL/A-83: The IAEA Nuclear Data Library for Evaluated Neutron Reaction Data of Actinides, version of Dec. 1983, documented in IAEA-NDS-12 rev. 7. This library is a complete revision and extension of the previous version distributed in May 1982. It contains 70 evaluations from Th-232 to Cm-248, 16 of them presented in two formats. Most evaluations are in ENDF/B-5 and/or ENDF/B-4 format, some in KEDAK or UKNDL format. Many are comprehensive evaluations of all neutron reactions, others include only (n,2n) and (n,3n) reactions, etc. The library contains 310.805 records. Upon request it is available free of charge.

KEDAK-4: The Karlsruhe nuclear data file, KEDAK-3 of 1975, has been supplemented with evaluations for additional nuclides. KEDAK-4 contains 57 evaluations, together 241 770 records.

Radioactive decay gammas (GSIGAM-82): A new 'catalogue of gamma rays from radioactive decay' was published in 'Atomic Data and Nuclear Data Tables' vol. 29 (1983). This data file, produced by Gesellschaft fuer Schwerionenforschung Darmstadt and University Marburg, FRG, has a cutoff date June 1982 and replaces the 1979 version which we announced in Nuclear Data Newsletter No. 2. Part 1 of this file is sorted by increasing gamma-energy, part 2 by mass and atomic number of the isotopes. Contrary to the 1979 version which is available from us on magnetic tape, the new version is not available on magnetic tape.

ENDF/B Processing Codes  
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An updated version of these codes (released December 1983) is now available upon request. It includes codes for checking and correcting data files in ENDF/B-5 format and codes for treatment of resonance-parameters, computing certain integral data, preparing data for graphical plotting, etc. (Compare previous issue of the Nuclear Data Newsletter for updated "Preprocessing codes").

Selected new publications of interest  
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\*\* = document available costfree from IAEA/NDS upon request  
\* = limited number of copies available costfree from IAEA/NDS upon request  
- = available from the originator, or from the INIS Microfiche Service (IAEA, P.O. Box 100, A-1400 Vienna, Austria)  
o = to be purchased from publisher

\*\* BNL-NCS-51694. Proceedings of the IAEA Advisory Group Meeting on Basic and Applied Problems of Nuclear Level Densities, held at Brookhaven National Laboratory, USA, 11 - 15 April 1983 (M.R. Bhat, ed.) 413 pages.

- \*\* INDC(NDS)-146. H.D. Lemmel, D.E. Cullen (ed.): IAEA Consultants' Meeting on the U-235 fast-neutron fission cross-section and the Cf-252 fission neutron spectrum, Smolenice, CSSR, 28 March-1 April 1983.
- o ANL-83-4. Proceedings of the NEANDC/NEACRP Specialists' Meeting on Fast-Neutron Capture Cross-Sections. Argonne, 20-23 April 1982.
- ZFK-491. Proceedings of the 12th Int. Symposium on Nuclear Physics (Heavy ion collisions and nuclear fission) Gaussig, GDR, 22-26 Nov.1982.
- \* Laboratory Manual: IAEA Training Course on Utilization of Neutron Generators, Debrecen 1982.
- \* IAEA-TECDOC-280. Proceedings of an IAEA Meeting (Vienna 13-17 Sept. 1982) on Data Acquisition and Analysis Systems for Nuclear Research and Applications.
- \* INDC(CCP)-214. V.V. Varlamov et al.: Photonuclear Data (a bibliography), issue no. 5, covering the literature published in 1981.
- \*\* INDC(YUG)-8. A. Trkov, A. Perdan: WIMS-IJSO, an extended version of the WIMS Group Constant Library.
- \*\* INDC(BUL)-6 (March 1982). G. Bojkov et al.: Modification of the SUPERTOG program applied to libraries with tabulated elastic-scattering anisotropy densities.
- \*\* INDC(BUL)-7 (March 1983). G. Voykov et al.: L26P3S34 - A 26-group library for the computation of neutron transfer in shielding media.
- \*\* INDC(BZL)-9 (Dec. 1983). L. Henrique Claro et al.: Updating of the LEOPARD Data Library.
- \* KFKI-1983-108. P. Vértés: Revised version of the FEDGROUP-3 program system.
- \*\* INDC(BZL)-6. R. Paviotti et al.: Comparison of 17 nuclides cross-sections from ENDF/B-4 and ENDL-78.
- \*\* INDC(CCP)-211 (Oct. 1983). V.V. Kolesov, A.A. Lukjanov: Simultaneous multi-level analysis of the total and fission cross-sections of Pu-239 up to 160 eV. (Translation from Jad. Konst. 1983).
- \*\* INDC(CCP)-203. V.M. Bychkov et al.: Comparative Analysis of the neutron cross-sections of iron from various evaluated data libraries. (Translation of a Russian paper from 1980).
- \*\* INDC(CCP)-209. V.V. Vozjakov et al.: Evaluation of neutron inelastic scattering cross-sections for chromium. (Transl. from Jad. Konst. 1982).
- ECN-111, Dec. 1981. W.L. Zijp et al.: Cross-section library DOSCROS81, in a 640 group structure of the SAND-2 type.
- \* INDC(EUR)-15 = EUR-7164 (1981). W.L. Zijp, J.H. Baard: Nuclear data guide for reactor neutron metrology. Part 1: Activation reactions (1979). Part 2: Fission reactions (1979).
- \* ECN-128 (Feb. 1983). W.L. Zijp et al.: Final report on the "REAL-80 Exercise", an IAEA co-ordinated international study on the accuracy of determination of reactor neutron spectra and related radiation damage in structural reactor materials.
- \*\* INDC(NDS)-148. Proceedings of the IAEA Consultant's Meeting, Vienna, 13-15 June 1983, on the Assessment of the results of the REAL-80 project on cross-section unfolding codes, and planning for continuation of this project.

- \* BNL-NCS-51647. J.K. Tuli: Thermal neutron capture gamma-rays. Tables of gamma-rays sorted by gamma-energy and by nuclide, for 170 nuclides in the range from Ca-45 to Cm-249, extracted from ENSDF.
- RD/B/5170-N-81, Oct. 1981. A. Tobias: A retrieval system for spectral data from ENDF/B format decay data files.
- \* JAERI-M-83-025 = INDC(JAP)-76. Y. Ando et al.: Prediction of mass excess, beta-decay energy and neutron separation energy from the atomic mass formula with empirical shell terms. (February 1983)
- \*\* INDC(CCP)-216. L.P. Kabina et al., Leningrad: A file of reference data for multiple-element thermal neutron activation analysis. (Based on decay data from ENSDF and thermal neutron capture cross-sections from BNL handbooks.)
- \*\* INDC(CSR)-4. I. Ribansky, S. Gmuca: Neutron activation cross-sections on Ti isotopes at 14.8 MeV.
- \*\* INDC(CSR)-3. I. Ribansky, S. Gmuca: Neutron activation cross-section measurements at 14 MeV, and their theoretical analysis.
- A. Takahashi et al., Osaka University Japan, OKTAVIAN-Report A-83-01 (June 1983): Double differential neutron emission cross-sections, numerical tables and figures, for 15 materials, using a 14 MeV neutron source. (The tabular data will be available in EXFOR).
- \*\* INDC(SEC)-85 (May 1983). Index to all INDC documents plus a list of other nuclear data documents recently received. (All documents listed are available free of charge).
- \*\* INDC(SEC)-86 (May 1983). Compilation of national nuclear data committees and their memberships.
- \*\* INDC(SEC)-87 (May 1983). INDC correspondents. (Names and addresses of nuclear data scientists on the distribution lists of INDC documents).
- \*\* Inventory of Data Sources in Science and Technology, published by UNESCO. This is an index to data bases in various fields.

Announcement of Conferences

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Fifth International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics, 10-14 September 1984, Knoxville, Tennessee, USA. Contact: S. Raman, ORNL Physics Division, P.O. Box X, Oak Ridge, Tenn., USA-37831.

International Conference on Nuclear Physics, 27-31 December 1984, BARC Bombay, India. Contact: B. Sinha, BARC Nuclear Physics Division, Bombay, India-400 085.

International Conference on Nuclear Data for Basic and Applied Science, 13-17 May 1985, Santa Fe, New Mexico, USA. See the announcement attached. Those who wish to receive more information may write to P.G. Young at the address indicated. Scientists from non-OECD countries should also contact: M.K. Mehta, IAEA Nuclear Data Section (see address below).

Nuclear Data Section (NDS), International Atomic Energy Agency  
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