Online News


PGAA Database for Prompt Gamma-ray Neutron Activation Analysis. Database contains neutron-capture prompt-gamma activation analysis (PGAA) library for elemental and nuclide analysis in materials science, geology, mining, archaeology, environment, food industry and medicine. The resulting database provides a variety of tables for all natural elements (from H to U) including the following data: isotopic composition, thermal radiative cross section (total and partial), Westcott g-factors, energy of the gamma rays (prompt and delayed), decay mode, half life and branching ratios.

CD-ROM contains:
- PGAA IAEA Database Viewer - undertakes interactive searches of the PGAA database by isotope, energy, or cross section;
- Documentation - report on the IAEA Coordinated Research Project for the Development of a Database for Prompt Gamma-ray Neutron Activation Analysis;
- PGAA Database Files - adopted PGAA database and associated files in EXCEL, PDF, and TEXT formats;
- Evaluated Gamma-ray Activation File (EGAF) - adopted PGAA database in ENSDF format. Data can be viewed with Isotope Explorer 2.2 ENSDF Viewer;
- PGAA Database Evaluation - ENSDF format versions of the adopted PGAA database, and the Budapest and ENSDF isotopic input files. Decay scheme balance and statistical analysis summaries are provided;
- Isotope Explorer 2.2 ENSDF Viewer - Windows software for viewing the level scheme drawings and tables provided in ENSDF format. The complete ENSDF database as of December 2002 is included;

All data are available online at:
http://www-nds.iaea.org/pgaa/

Full CD-ROM version of the Web PGAA database (see above) is freely available on the request.

IBANDL – Ion Beam Analysis Nuclear Data Library. Collection of experimental cross sections, merging databases SigmaBase and NRABASE. Graphs and numerical data in R33 and RTR format are given. Available online at:
http://www-nds.iaea.org/ibandl/

Minsk Actinide Library, by M.M. Maslov et al. (2004). The library includes evaluated neutron reaction data for Th-232, Pa-231,233, U-232,233,234,238, Np-238, Pu-238, Pu-242, Am-241,242-g,242-m,243, Cm-243,245,246 in ENDF-6 format. February 2004 update includes new evaluations for Pa-231 and Pa-233 nuclides. The data are available on CD-ROM on request or online:
http://www-nds.iaea.org/minskact/
Charged-particle Cross Section Database for Medical Radioisotope Production – now updated. Version January 2004, with links to ENDF-6 formatted data. The data are available online at: http://www-nds.iaea.or.at/medical/ or on CD ROM on request.

Offline News

Updated databases and libraries are now available on CD-ROM:

CINDA 2003 Book (1988 – 2003) with 2 CD-ROMs (1935 – 2003). The Index to Literature and Computer Files on Microscopic Neutron Data. The CINDA bibliography allows users to find the references to specific types of cross-section information or other microscopic data from neutron-induced reactions, for any given target nucleus. Prepared by NEA Data Bank, Paris and published on behalf of USA National Nuclear Data Center, Russian Nuclear Data Centre, NEA Data Bank, IAEA Nuclear Data Section. Available cost free on request.


In Memoriam

Gábor Molnár

With great sadness we learned of the sudden and untimely death of Professor Gábor Molnár (Institute of Isotope and Surface Chemistry, Budapest, Hungary) in early January 2004, aged 56 years. NDS staff knew Gábor well and worked with him over many years for the benefit of the international community. Gábor participated in several Coordinated Research Projects of the IAEA and made appreciable contributions to their success. He contributed significantly to nuclear methods of analysis, in which his most recent work with NDS included neutron-induced prompt gamma-ray emission activation analysis and the measurement of high-energy gamma-ray emitters for nuclear structure and decay data studies. Gábor was also a member of the INDC, a panel of international experts who advise the IAEA regularly concerning the contents of its nuclear data programme.

Sol Pearlstein

Sad news was received in the fall of 2003 of the death of Sol Pearlstein (ex-Brookhaven National Laboratory, USA). In the autumn of 1976, Sol Pearlstein used his considerable technical and social skills to chair an important meeting organized in Vienna by the Nuclear Data Section to discuss worldwide needs for nuclear structure and decay data. The net result of this watershed event was the creation of an international network of expertise devoted to the development and maintenance of a key set of data files: ENSDF (and Nuclear Data Sheets).

Sol Pearlstein played a pivotal role in the formation of an important network that continues to this day – effectively, he was the creator of the Nuclear Structure and Decay Data Network (NSDD). His contribution to this work, and much else, was acknowledged during the biennial NSDD meeting at IAEA Headquarters in November 2003.
Selected Reports and Documents

Chart of the Nuclides. Wall chart of the Nuclides from KAPL and General Electric Co, 15th edition (revision to 1996). Available cost free on request by users from developing countries.


INDC(CCCP)-437. Neutron multiplicity for Neutron Incident Energy from 0 to 150 MeV. N.V. Kornilov, A.B. Kagalenko, V.M. Maslov, Yu. V. Porodzinskij, December 2003. This report is available as hard copy or online at: http://www-nds.iaea.org/indc_sel.html

INDC(CCCP)-438. Evaluation and Improvement of Cross Section Accuracy for Most Important Dosimetry Reactions $^7$Al(n,p), $^{56}$Fe(n,p) and $^{237}$Np(n,f) Including Covariance Data. K.I. Zolotarev, IPPE, Obninsk, Russia, February 2004. This report is available as hard copy or online at: http://www-nds.iaea.org/indc_sel.html


JAERI-Research 2003-026. Evaluations of Heavy Nuclide Data for JENDL-3.3, edited by...
Toshikiko Kawano et al. December 2003. This report is available as hard copy.


Note: Unless indicated otherwise, the quoted data files, printed materials, or computer codes are available cost-free upon request. When requesting data files or codes, kindly give us your desired specifications.

Co-operating nuclear data service centers

For services to customers in USA and Canada:
US National Nuclear Data Center, Bldg. 197D, Brookhaven National Laboratory, P.O. Box 5000, Upton, NY 11973-5000, USA. Tel. +1 631-344-2902; Fax +1 631-344-2806; E-mail: ndnc@bnl.gov; Worldwide Web: http://www.ndnc.bnl.gov/ For information on online services and requests contact: Ms. V. McLane.

For services to customers in OECD countries in Western Europe and Japan:
NEA Data Bank: OECD Nuclear Energy Agency, Le Seine Saint-Germain, 12 blvd des Iles, F-92130 Issy-les-Moulineaux, France. Tel. +33 1 4524 (plus extension); Fax +33 1 45241110; E-mail: (name)@nea.fr or nea@nea.fr; Worldwide Web: http://www.nea.fr username: NEADB. Contact: C. Nordborg, ext. 1090.

For services to the countries of the former USSR:
Neutron data: Russia Nuclear Data Center, Centr Jadernyk Dannykh (CJD), Fiziko-Energeticheskij Institut, Ploschad Bondarenko, 249402 Obninsk, Kaluga Region, Russia. Tel. +7 08439-9-8982; Fax +7 095-230-2326; E-mail: manokhin@ippe.obninsk.ru. Worldwide Web http://rndc.ippe.obninsk.ru/ Contact: V.N. Manokhin.

Charged-particle data: Russia Nuclear Structure and Reaction Data Center (CAJAD), Kurchatov Institute, Kurchatov’s Square 1, 123 182 Moscow, Russia. Tel. +7 095-196-9968; Fax +7 095-882-5804; E-mail: feliks@polyn.kiae.su Contact: F.E. Chukreev.

Photonuclear data: Centre for Photonuclear Experiments Data, Centr Dannykh Fotoyadernyk Ekspertementov (CDEF), Skobeltsyn Institute of Nuclear Physics, Lomonosov Moscow State University, Leninskie Gory, 119 922 Moscow, Russia. Tel. +7 095-939-3483; Fax +7 095-939-0896; E-mail: varlamov@depni.sinp.msu.ru or varlamov@depni.npi.msu.su. Worldwide Web http://depni.sinp.msu.ru/edfe/ Contact: V.V. Varlamov.

For services to customers in China:
China Nuclear Data Center, China Institute of Atomic Energy, P.O. Box 275(41), Beijing 102413, China. Tel. +86 10-6935-7275; Fax +86 10-6935-7008; E-mail: gezg@iris.ciae.ac.cn Contact: Ge Zhigang.

Computer codes of US origin to all countries:
Radiation Safety Information Computational Center (RSICC), Oak Ridge National Laboratory, P.O. Box 2008, Oak Ridge, TN 37831-6362, USA. Tel. +1 865-574-6176; Fax +1 865-574-6182; E-mail: pdc@ornl.gov. Worldwide Web http://epicws.epm.ornl.gov/ (there may be charges and release restrictions)

Computer codes of non-US origin to all countries:
NEA Data Bank, see above, contact: E. Sartori, ext. 1072; E-mail: sartori@nea.fr (there may be release restrictions)

The IAEA Nuclear Data Section offers data centre services primarily to non-OECD countries (except Russia and China, see above). However, most products advertised in this Newsletter, specifically INDC reports, IAEA-NDS-documents, etc., are provided, upon request to customers in all countries. For online services see the first page of this Newsletter. Users of countries in Latin America and Caribbean may use IAEA-NDS mirror at Worldwide Web http://www-nds.ipen.br

The Nuclear Data Newsletter is prepared twice a year by the Nuclear Data Section, IAEA Division of Physical and Chemical Sciences.

Printed by the IAEA in Austria, April 2004 04-19991