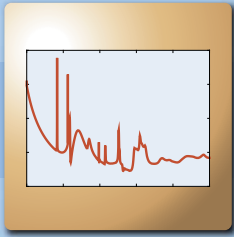




IAEA
International Atomic Energy Agency



Nuclear Data Newsletter

**A newsletter of the Nuclear Data Section (NDS)
Issue No. 41, May 2006**

ISSN 0257-6376

In This Issue

- Online News, p.1
- Staff Items, p.1
- Coordinated Research
- Projects, p.1
- Database News, p.2
- Computer Codes and Data Libraries, p.2
- Selected Reports and Documents, p.2

All services provided to users are free of charge. Please contact us on the following addresses:

Nuclear Data Section
International Atomic Energy Agency
P.O. Box 100
A-1400 Vienna, Austria

Internet: <http://www-nds.iaea.org>
E-mail: services@iaea.org
Fax: +43 (1) 26007
Cable: INATOM VIENNA
Telex: 1-12645
Telephone: +43 (1) 2600-21710

Online News

Ongoing Service

The Nuclear Data Section is currently compiling an electronic library of all documents produced by the IAEA pertaining to Nuclear Data Services. These documents are from the IAEA-NDS, INDC and IAEA TECDOC series. Many only existed originally in microfiche or paper form. All known documents will eventually be converted to PDF and placed on our web site.

This project is ongoing and can be viewed on:

<http://www-nds.iaea.org/reports-new/>

Staff Items

Andrej Trkov (Deputy Head of Section) has left us after almost six years to return to the Josef Stefan Institute, Ljubljana, Slovenia. During his stay in the Nuclear Data Section, he has dedicated his technical efforts to nuclear applications databases and related software – WIMS/D, FENDL-2.1, ADS, IRDF-2002 and prompt-gamma data amongst others – plus CRP initiatives to produce nuclear data for the Th-U fuel cycle and neutron activation analysis. We extend all our best wishes for Andrej's future endeavours, and expect our strong technical links to be maintained.

Coordinated Research Projects

IAEA Coordinated Research Projects (CRPs) are a valuable mechanism for stimulating research in IAEA Member States of relevance to Agency programmes. CRPs of the Nuclear Data Section, both active and recently completed, can be found at:

<http://www.iaea.org/programmes/ripc/nd/crps.htm>

Database News

EXFOR - Comprehensive library of experimental nuclear reaction data induced by neutrons, charged particles and photons.

- Available via retrieval systems on CD* and Web: <http://www-nds.iaea.org/exfor/>
- Contains 15,575 entries and 104,941 data tables
- Master file, trans files, dictionaries and software for compilers are regularly updated and available on Web: <http://www-nds.iaea.org/exfor-master>
- New service: upload users' data on the Web: <http://www-nds.iaea.org/exfor/x4send.htm>

CINDA - Bibliographical references to experimental nuclear reaction data, and calculations, reviews, compilations and evaluations of neutron reaction and spontaneous fission data.

- Extended by information from EXFOR
- Available via retrieval systems on CD* and Web: <http://www-nds.iaea.org/cinda/>
- Contains 424,877 lines, 58,100 publications and 181,298 blocks.

ENDF - evaluated cross sections, spectra, angular distributions, fission product yields, photo-atomic and thermal scattering law data, with emphasis on neutron-induced reactions. This database contains basic national recommended libraries (USA, European, Japanese, Russian and Chinese) - both specialized and archival libraries.

- Extended software, improved interface
Available via retrieval systems on Web: <http://www-nds.iaea.org/endl/>
- Contains 12 Libraries, 10,989 evaluations.

*All databases work on MS-Access, MySQL and Sy-Base.

- Help based on Dictionaries
- Interactive graphics with ZVView
- Does not need installation - can run from CD
- Works with local and remote databases
- Includes non-interactive EXFOR retrievals

Two CD-ROMs are available:

- "for Windows" with MS-Access databases
- "for Applications" for Linux and Window with MySQL databases

Developed by V. Zerkin, Nuclear Data Section, IAEA, 2001-2006.

ENDVER/GUI and EXFOR-CINDA package March 2006:

An integrated software package for comparison of evaluated nuclear data files with experimental data from the EXFOR database (also contains interactive plotting).

Features:

- ENDVER with software graphics and user interface
- Matching of the discrete level energies from the data in the RIPL database (new)
- Automatic conversion to cross sections of ratio measurement relative to standard cross sections and many more (new)
- Integrated ENDVER-EXFOR
- PostScript graphics with PlotC4
- Interactive graphics with ZVView
- Does not need installation - runs from CD
- Works on Linux and Windows
- Has all features of EXFOR-CINDA CD

Developed by A. Trkov and V. Zerkin, NDS, IAEA, 2004-2006.

XNWLUP/WIMS, Version August 2006.

An updated package was recently received and uploaded to the address below. These data are available on CD-ROM on request.

<http://www-nds.iaea.org/wimsd/downloads.htm>

Computer Codes and Data Libraries

The following databases and libraries are on CD-ROM and are available cost free on request:

EXFOR-CINDA Database and Retrieval Systems, version 1.90, data updated as of February 2006.

- Integrated CINDA and EXFOR
- Renewed database contents (see Database News)
- Advanced interactive search

Selected Reports and Documents

Chart of the Nuclides. *Prepared by Knolls Atomic Power Laboratory and distributed by Lockheed Martin (16th edition, revised to 2002).* Available cost free on request only for teachers and scientists from developing countries.

Chart of the Nuclides Book. *Prepared by Knolls Atomic Power Laboratory and distributed by Lockheed*

Martin (16th edition, revised to 2002). This book form of the Nuclides Chart is available cost free on request only for teachers and scientists from developing countries.

Karlsruher Nuklidkarte. *Wall Chart of the Nuclides from Karlsruhe, 6th edition (1995).* Available cost free on request for scientists and teachers only from developing countries.

Karlsruher Nuklidkarte Desk Chart of the Nuclides from Karlsruhe, 6th edition (1995). Updates from 1998. Available cost free on request for scientists and teachers only from developing countries.

INDC(GER)-051. *Progress Report on Nuclear Data Research in the Federal Republic of Germany, for the Period 1st April 2004 to 30th September 2005.* Edited by S.M. Qaim, Forschungszentrum Juelich, Germany, December 2005.

This report is available as hard copy on request.

INDC(IND)-047. *A Review of Experimentally Observed Zirconium Spectra,* prepared by S.M. Afzal, K. Khatoon and K. Rahimulla, Aligarh, India, November 2005. Available as hard copy on request.

INDC(ITY)-0013. *Activity Report of the ENEA Nuclear Data Project in 2005,* prepared by A. Ventura, March 2006. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0452 Part I. *Workshop on Nuclear Structure and Decay Data; Theory and Evaluation, Manual - Part I,* edited by A.L. Nichols and P.K. McLaughlin, Vienna, November 2004. This report is available on our web site only.

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0452 Part II. *Workshop on Nuclear Structure and Decay Data; Theory and Evaluation, Manual - Part II,* edited by A.L. Nichols and P.K. McLaughlin, Vienna, November 2004. This report is available on our web site only.

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0473. *Workshop on Nuclear Structure and Decay Data: Theory and Evaluation. Addendum – 2005,* edited by A.L. Nichols and P.K. McLaughlin, Vienna, July 2005. This report is available only online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0476. *Coordination of the International Network of Nuclear Structure and Decay Data Evaluators.* Summary Report of an IAEA Technical Meeting, Hamilton, Canada, 6–10 June 2005, prepared by

A.L. Nichols and J.K. Tuli, September 2005. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0477. *Reference Database for Neutron Activation Analysis.* Summary Report of the First Research Coordination Meeting, 3–5 October 2005, prepared by R.B. Firestone and A. Trkov, October 2005. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0478. *Nuclear Data for the International Fusion Materials Irradiation Facility (IFMIF).* Summary Report of a Technical Meeting, 4–6 October 2005, prepared by R. Forrest, and A. Mengoni, October 2005. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0479. *Updated Decay Data Library for Actinides.* Summary Report of the First Research Coordination Meeting, 17–19 October 2005, prepared by M.A. Kellett, January 2006. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0480. *Report on the IAEA Technical Meeting on the Network of Nuclear Reaction Data Centres,* Vienna, 12-14 October 2005, prepared by O. Schwerer, February 2006. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0481. *Development of a Reference Database for Ion Beam Analysis.* Summary Report of the First Research Coordination Meeting, 21–23 November 2005, prepared by I. Vickridge and O. Schwerer, January 2006. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0482. *Atomic and Molecular Data for Plasma Modelling.* Summary Report of the First Research Coordination Meeting, 26–28 September 2005, prepared by D. Humbert, January 2006. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0483. *Beta-Decay and Decay Heat.* Summary Report of a Technical Meeting, 12-14 December 2005, Vienna, prepared by A.L. Nichols, December 2005. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0484. *Phase-Space Database for External Beam Radiotherapy*, Summary Report of a Consultants' Meeting, 12-14 December 2005, Vienna, organized by Nuclear Data Section and Medical Radiation Physics Section of the Division of Human Health, IAEA, December 2005. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0485. *Establishment of A+M Computer Code Network*, Summary Report of an IAEA Technical Meeting, 23-25 May 2005, Vienna, prepared by R.E.H. Clark, January 2006. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0486. *Assess Data Relevant to Spectral Analysis of Fusion Plasmas*. Summary Report of an IAEA Technical Meeting, 13-14 June 2005, Vienna, prepared by R.E.H. Clark, January 2006. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0487. *Atomic Data for Heavy Element Impurities in Fusion Reactors*. Summary Report of the First IAEA Research Coordination Meeting, 14-15 November 2005, Vienna, prepared by R.E.H. Clark, January 2006. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0488. *14th Meeting of the IFRC Subcommittee on Atomic and Molecular Data for Fusion*. Summary Report of an IAEA Technical Meeting, 24-25 June 2004, Vienna, prepared by R.E.H. Clark and N.J. Peacock, January 2006. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0489. *Technical Aspects of Atomic and Molecular Data Processing and Exchange – 18th Meeting of the A+M Data Centres and ALADDIN Network*. Summary Report of an IAEA Technical Meeting, 10-11 October 2005, Vienna, prepared by D. Humbert, October 2006. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0490. *Atomic and Molecular Data for Plasma Diagnostics*. Summary Report of the final IAEA Research Coordination Meeting, 19-20 July 2004, Vienna, prepared by R.E.H. Clark, February 2006. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0493. *Resolution Broadening of Measured Leakage Spectra from IPPE Spheres*. prepared by A. Trkov, IAEA, NDS, January 2006. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0494. *Evaluated Nuclear Data for Th-U Fuel Cycle*, Summary Report of the Third Research Coordination Meeting, 30 January to 2 February 2006, Vienna, prepared by P. Schillebeeckx and A. Trkov, February 2006. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

INDC(NDS)-0495. *Tritium Inventory in Fusion Reactors*, Summary Report of the Second IAEA Research Coordination Meeting, Vienna, 18-19 October 2004, prepared by R.E.H. Clark, March 2006. This report is available as hard copy or online at:

http://www-nds.iaea.org/indc_sel.html

Nuclear Wallet Cards 2005. 7th Edition, by Jagdish K. Tuli, National Nuclear Data Center. These pocket size wallet cards are available as hard copy on request.

NEA/WPEC-19. *Neutron Activation Cross-Section Measurements from Threshold to 20 MeV for the Validation of Nuclear Models and their Parameters*. A Report on International Evaluation Cooperation of the NEA Nuclear Science Committee, coordinated by A.J.M. Plompen. Available as hard copy on request.

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: nndc@bnl.gov; Worldwide Web: <http://www.nndc.bnl.gov/> For information on online services and requests contact: D. Rochman.

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 Jadernykh Dannykh (CJD), Fiziko-Energeticheskij Institut, Ploschad Bondarenko, 249020 Obninsk, Kaluga Region, Russia. Tel. +7 08439-9-8982; Fax +7 095-230-2326; E-mail: manokhin@ippe.obninsk.ru. Worldwide Web <http://rnde.ippe.obninsk.ru/> Contact: V.N. Manokhin.
Charged-particle data: Russia Nuclear Structure and Reaction Data Center (CAJAD), Kurchatov Institute, Kurchatov 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 Fotoyadernykh Eksperimentov (CDFE), 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/cdfe/> 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 are 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)
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>

Users in India and neighbouring countries may use IAEA-NDS mirror at

Worldwide Web <http://www-nds.indcentre.org.in>



IAEA

International Atomic Energy Agency

Nuclear Data Newsletter

No. 41, May 2006

06-16811

Wagramer Strasse 5, P.O. Box 100,
A-1400 Vienna, Austria

The Nuclear Data Newsletter is prepared twice per year by the Nuclear Data Section,
IAEA Division of Physical and Chemical Sciences. Printed by the IAEA in Austria, May 2006