



**International Atomic Energy Agency**

# **Centre Report - IAEA NDS**

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**Nuclear Data Section  
Department of Nuclear Sciences and Applications**

# Staff

- **12 Professional + 5 Support staff**
- **Mark Kellett left February 2012**



# Data Compilations

- **14 final TRANS tapes transmitted:**
  - 7 neutron tapes (22 new, 86 revised)
  - 5 CPND tapes (88 new, 94 revised)
  - 2 PhND tapes (13 new, 15 revised)
- **64 final TRANS tapes received:**
  - 451 neutron entries (39 new, 412 revised)
  - 723 CPND entries (335 new, 388 revised)
  - 130 PhND entries (52 new, 78 revised)



## Data Compilations (2)

- **Finalized TRANS tapes → 12 EXFOR Master Files created and distributed**
- **1 transmission of EXFOR/CINDA dictionaries in:**
  - **TRANS**
  - **DANIEL (backup)**
  - **Archive format**
- **55 preliminary TRANS tapes received and checked**



## **EXFOR coverage control**

- **EXFOR compilation control system:**
  - **~ 75 journals regularly scanned**
  - **~ 500 journal issues scanned and added to compilation control database**
  - **PDFs of registered articles collected (if possible)**
  - **First author names displayed for registered articles in web interface**
  - **Compilers can search EXFOR entries having same author name - reduces duplication**



# Meetings

- **Later talk describes: Long term needs and future of EXFOR**
- **Several meetings attended covering:**
  - **Medical Isotopes**
  - **Beta-delayed Neutrons**
  - **Ion Beams**
  - **FENDL-3**
  - **Prompt Fission Neutron Spectra**
  - **Radiation Induced Defects**



# CINDA

- **Latest CINDA Master File available**
- **Automatic update using the EXFOR and NSR databases (December 2011)**
- **MySQL dump of complete CINDA sent to NNDC**



# Services

- **Web - See V. Zerkin presentation**
- **DVD - ‘Nuclear reaction libraries, database retrieval systems and applications’**
- **Documents:**
  - **All INDC documents → PDF**
  - **2500 available**
  - **Improved web page for access**





# Publications

International Atomic Energy Agency  
**Nuclear Data Services**  
Секция Ядерных Данных МАГАТЭ

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Search  Go

Hot Topics » ENDF/B-VII.1 • TENDL-2011 • JENDL-4 • IBANDL News » 2012/03/30 TENDL-2011 - TALYS Evaluated Nuclear Data Library

### Publications

Reports are grouped according to series title. The search engine provides keyword-search across all series.

<h4>INDC Reports</h4> <p>International Nuclear Data Committee reports Further divided by organization and region</p> <p><a href="#">go to</a></p>	<h4>INDC NDS</h4> <p>Nuclear Data Section reports INDC series reports authored by the NDS staff members</p> <p><a href="#">go to</a></p>	<h4>IAEA-NDS</h4> <p>Documentation Series of the IAEA Nuclear Data Section Set of reports authored by the IAEA Nuclear Data Section</p> <p><a href="#">go to</a></p>
<h4>Tecdocs</h4> <p>The IAEA Technical Documents (IAEA-TECDOC) series Subset relevant to Nuclear Data Services. Includes Proceedings of the Symposia on Physics and Chemistry of Fission 1969, 1973 and 1979</p> <p><a href="#">go to</a></p>	<h4>Conference Proceedings</h4> <p>Documents from various sources INDC Special series - IAEA Tecdocs - Proceedings of the Symposia on Physics and Chemistry of Fission 1969, 1973 and 1979</p> <p><a href="#">go to</a></p>	<h4>NDS Staff Publications</h4> <p>List of references Publications authored or co-authored by the NDS staff members.</p> <p><a href="#">go to</a></p>

### New Additions

last on 2012-03-21

**Summary Report of the Consultants' Meeting on Further Development of EXFOR**  
D. Brown, S. Simakov

**Fusion Plasma Modelling Using Atomic and Molecular Data**  
B.J. Braams

**Systematic study of  $(n, p)$  reaction cross sections from the reaction threshold to 20 MeV**  
B. Lalremruata, N. Otuka, G.J. Tambave, V.K. Mulik, B.J. Patil, S.D. Dhole, A. Saxena, S. Ganesan, V.N. Bhoraskar, *Phys. Rev. C*85(2011)024624

### Search

Thousands of papers are available in the NDS database  
Find what you are looking for searching on any field: author, title, abstract, code

Search for  Go

use multiple keywords separated by space

Order by  
 Reference Code  Author  Publication Date

### Quick Links

- ADS-Lib
- Atomic Mass Data Centre
- CINDA
- Charged particle reference cross section
- DROSG-2000
- EMPIRE-3.1
- ENDF Archive
- ENDF Retrieval
- ENDF-6 Codes
- ENDF-6 Format
- ENDVER
- ENSDF
- ENSDF ASCII Files
- ENSDF programs
- EXFOR
- FENDL-2.1
- Fission Yields
- GANDR
- Geant4 Libraries
- IBANDL
- INDL/TSL

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# Publications

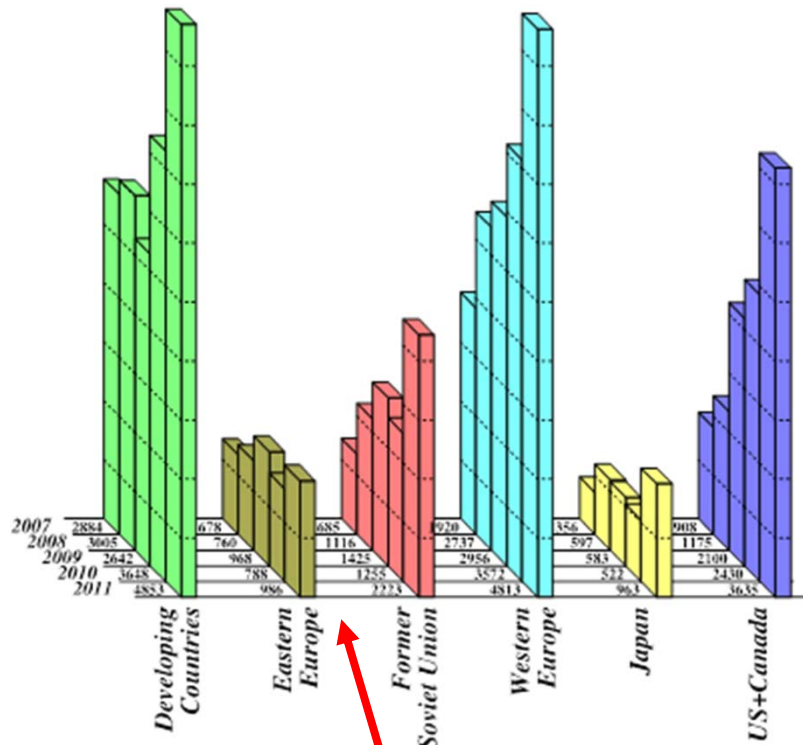
## INDC-NDS series - INDC Reports

QuickSearch - all fields    Number of matching entries: 616/616.

INDC(NDS)-0614 INDC-2559	<b>Summary Report of the Consultants' Meeting on Further Development of EXFOR</b>	D. Brown, S. Simakov
 • <b>INDC(NDS)-0613</b> <b>INDC-2558</b>	<b>Fusion Plasma Modelling Using Atomic and Molecular Data</b> Summary Report of a Joint ICTP-IAEA Workshop	B.J. Braams
 • <b>INDC(NDS)-0612</b> <b>INDC-2556</b>	<b>New Evaluated Neutron Cross Section Libraries for the GEANT4 Code</b>	E. Mendoza, D. Cano-Ott, C. Guerrero, R. Capote
 • <b>INDC(NDS)-0611</b> <b>INDC-2557</b>	<b>FENDL-3.0: Processing the Evaluated Nuclear Data Library for Fusion Applications</b>	D. Lopez Aldama, R. Capote Noy
INDC(NDS)-0610 INDC-2554	<b>Summary Report from the Technical Meeting on Ab-Initio based Methods for Plasma Material Interaction in Fusion Devices</b>	B. Braams
INDC(NDS)-0609 INDC-2553	<b>Summary Report from the Technical Meeting on Improving Database for Physical and Chemical Sputtering</b>	B. Braams
INDC(NDS)-0608 INDC-2552	<b>Summary Report from the Second RCM on Prompt Fission</b>	R. Capote Noy
INDC(NDS)-0607 INDC-2551	<b>Summary Report from the Third RCM on Characterization of Size, Composition and Origins of Dust</b>	B. Braams
 • <b>INDC(NDS)-0606</b> <b>INDC-2550</b>	<b>XML Schema for Atoms, Molecules and Solids (XSAMS), Summary Report of an IAEA Consultants' Meeting</b>	B. Braams



# Web Statistics



Flat

Documents

LiveChart

EXFOR

ENDF



## On-going CRPs

- **Minor Actinide Neutron Reaction Data (MANREAD) (2007-2011)**
- **Nuclear Data Library for Advanced Systems: Fusion Devices (FENDL-3) (2007-2012)**
- **Prompt Fission Neutron Spectra of Actinides (2009-2013)**
- **Development of a Reference Database for Particle-Induced Gamma-ray Emission (PIGE) (2011-2015)**



# Data Development Projects (DDPs)

- **Maintain the international neutron cross section standards file and evaluation techniques**
- **Extension of the IRDF-2002 dosimetry library, the International Dosimetry Library (IRDFF)**
- **Ion Beam Analysis Nuclear Data Library (IBANDL)**
- **Development of evaluation methodology and nuclear reaction modelling systems**
- **Neutron data evaluation work up to 150 MeV: W isotopic chain and  $^{55}\text{Mn}$  nucleus**
- **Missing Level corrections using experimental neutron spacings input to JEFF project**
- **Decay heat, collaboration with Manipal, India**



## Visits and Publications

- **V. Zerkin (NDS) to NNDC. To deploy and further develop software for the management and web-retrieval of ENDF, CINDA and EXFOR databases**
- **N. Otsuka (NDS) to CNDC: To attend the 2nd Asian Nuclear Reaction Database Development Workshop**
- **70 Publications by Staff 2011-2012**

