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**Memo CP-D/706**

**Date:** 17 June 2011  
**To:** Distribution  
**From:** N. Otsuka

**Subject: Conclusions and Actions of the 2011 NRDC meeting**

Please find attached the Conclusions and Actions of the 2011 NRDC meeting in Vienna. Italicized parts are alteration from the draft prepared at the meeting.

Please give your feedback about any mistakes or omissions by the 15 July. The complete meeting summary will, as usual, then be published as an INDC report.

Remember also that the status reports, working papers and presentations at the meeting are available from the web page ([http://www-nds.iaea.org/nrdc/nrdc\\_2011/](http://www-nds.iaea.org/nrdc/nrdc_2011/)).

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# Conclusions and Actions of the 2011 NRDC Meeting

## Conclusions

### General

- C1 The next full NRDC meeting will be held in Paris, France, 16-19 April 2012.

### EXFOR, General

- C Efforts should be made to reduce delay in submission of the final transmission tapes. (WP2011-03)
- C Articles in press should be scanned and compiled by responsible centres to reduce delay in compilation. (WP2011-04)
- C NRDC appreciates the recommendations on compilation of experimental uncertainties and covariances by the “Technical Meeting on Neutron Cross Section Covariances (27-30 September 2010)”. (WP2011-10)
- C Centres are encouraged to compile newly published *and other representative* super-heavy element production cross sections. (WP2011-12)
- C NRDC appreciates WPEC SG30 their systematic assessment of the EXFOR contents and identification of compilation mistakes. (WP2011-17)
- C NRDC appreciates *the efforts of* participants of Consultant Meeting on Neutron Source Spectra for EXFOR (13-15 April 2011) and other experimentalists who provided numerical neutron spectra for inclusion to the EXFOR library.
- C NRDC recognizes the importance of compilation of neutron source spectra to utilize experimental spectrum averaged cross sections.

### Manuals and Dictionaries

- C Revised EXFOR Formats Manual (IAEA-NDS-207 Rev.2011/01) and LEXFOR (IAEA-NDS-208 Rev.2011/01) have been approved. (WP2011-13)

### CINDA

### EXFOR, Technical

- ~~C *Sequence number (columns 67 to 79) will be optional. (WP2011-23).*~~
- C TITLE must be coded as close as the title printed in the article. When English translation of the title is provided by the author or publisher, it must be adopted. (WP2011-25)
- C NRDC does not recommend any rule to spell nuclides and mathematical expressions in free text. (WP2011-25)
- C The LEXFOR entry for TOF covariance proposed in WP2011-27 was approved.
- C The short nuclide codes for SF7 proposed in WP2011-28 were approved.
- C A new branch code ISP (partial for intermediate state) in WP2011-29 was approved.
- C Use of the specific spectrum temperatures ( $kT$ ) for prompt fission neutron spectrum averaged cross sections proposed in WP2011-30 was approved.
- C The proposal on consistency of unit codes (2 instead of –SQ, MU instead of MICRO- and MU-) was approved.

- C Centres are recommended to submit BIBTeX with each transmission tape.

### EXFOR Software

- C NRDC appreciates development of X4 uploading system developed by Viktor Zerkin.
- C NRDC recommends NDS to *organize a workshop for EXFOR users*.

## Actions

### General

#### EXFOR General

- |   |  |   |
|---|--|---|
| A | All                                    | Correct erroneous entries listed on the EXFOR Feedback List on the NRDC web page according to indicated priorities.   |
| A | Babykina,<br>Mikhaylyukova,<br>Semkova | <i>Summarize and report recommendations on the EXFOR Compilation Control System by a memo with the EXFOR Workshop participants. (WP2011-08)</i>   |
| A | NDS                                    | Assess a possibility of organizing a working group with the final goal to prepare a new experimental data library format  |
| A | Otsuka                                 | <i>Provide EXFOR News when the EXFOR Master is updated.</i>   |
| A | Zerkin,<br>Semkova                     | <i>Make following revisions on the EXFOR Compilation Control System and Webpage: (1) Addition of the first author field (trial for 1 year); (2) Removal of articles compiled in EXFOR from the web page; (3) Exclusion of transmission number from the compiler name field; (4) Rename of "Subject" and "Compiler" fields to "Projectile" and "Centre".</i> |
| A | All                                    | (Continuing action) Give high priority to compilation of papers from the ND2010 (Jeju, Korea) conference. (WP2011-09)   |
| A | All                                    | (Standing Action) Give highest priority to compiling new publications.  |
| A | NDS                                    | ( <i>Standing Action</i> ) Develop sensible means of communication of numerical data between authors and NRDC for the major journals.   |

#### Manuals and Dictionaries

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|---|-------------------|---|
| A | Otsuka,<br>Hlavač | Summarize proposals on change in dictionary 25 based on the Conclusion xx, and submit it as a memo.   |
| A | Otsuka            | Revise LEXFOR for TOF covariance (WP2011-27), new branch code ISP (WP2011-29), specific temperatures for prompt fission neutron spectrum averaged quantities (WP2011-30), and compilation of prompt fission neutron quantities (WP2011-31). |
| A | Otsuka            | Revise EXFOR Formats Manual for short nuclide codes in SF7 (WP2011-28).   |
| A | Otsuka            | Consider distribution of preliminary dictionaries to suppress unnecessary error messages from checking programs.  |

## CINDA

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|---|--------|---|
| A | Dupont | (Continuing Action) Search for experimental and mixed entries in which the target is coded by MNY, and replace with individual isotope/compound entries as outlined in WP2008-36. |
| A | Dupont | (Continuing Action) Correct errors detected during CINDA loading procedure, as described in WP2008-36.  |
| A | Dupont | (Continuing Action) Correct all CINDA lines, as described in WP2009-30.   |
| A | Zerkin | (Continuing Action) Regular export from EXFOR DB to CINDA.  |
| A | Zerkin | (Continuing Action) Regular export from NSR to CINDA.   |
| A | Zerkin | (Continuing Action) Periodically update the CINDA master file and distribute it to other Centres.   |

## EXFOR Technical

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|---|---|--|
| A | All   | (Continuing Action) Revise remaining upper case entries with other necessary corrections as time permits. (WP2011-05)  |
| A | Hlavač,<br>Schwerer                                 | (Continuing Action) Delete duplication from area 1, C and L (C1665, C1676, C1679, C1719, C1724 and L0144) according to the third proposal in the WP2010-14. (WP2011-06)  |
| A | Schwerer<br>Dupont<br>Mikhaylyukova                 | Revise prompt fission neutron spectra (PFNS) entries listed in WP2011-11 before the next IAEA CRP (December 2011) on this subject. Highest priority must be given to U-235 and Pu-239 PFNS.                                  |
| A | Babykina<br>Makinaga                                | Replace element symbols of asterisk in REACTION SF4 with approved ones for elements $Z \leq 112$ (Entry A0054, E2054). (WP2011-12)   |
| A | Hlavač<br>Dupont<br>Semkova<br>Taova<br>Makinaga    | Compile neutron source spectra listed in WP2011-13.  |
| A | Hlavač<br>Otsuka<br>Varlamov                        | Compile nuclear resonance fluorescence data listed in WP2011-14 and other relevant data.   |
| A | Hlavač<br>Dupont<br>Semkova<br>Mikhaylyukova        | Assess neutron cross section data useful for standard evaluation listed in WP2011-15 and compile them when appropriate.  |
| A | Schwerer<br>Dupont<br>Babykina<br>Taova<br>Varlamov | Revised entries listed by the WPEC SG30 ( <a href="http://www-nds.iaea.org/nrdc/error/exfor_err3.html">http://www-nds.iaea.org/nrdc/error/exfor_err3.html</a> ) in area 1, 2, A, C, F and M as soon as possible. (WP2011-16) |
| A | Dupont  | Provide NDS lists of erroneous and suspicious outliers by using the new statistical approach being developed when available. (WP2011-17)   |
| A | Otsuka  | Assess the JANIS Import Log provided by N. Soppera (WP2011-18) and register necessary mistakes to the EXFOR Feedback List.   |

A	Gritzay, Otsuka, Simakov, Semkova, Zerkin	<i>Finalize discussion on compilation of neutron spectra (WP2011-22) with other centres and submit summary of discussion as a memo until November 2011.</i>
A	Otsuka	Assess the report on incorrect authors' name reported by M. Bossant (WP2011-24), and add necessary mistakes to the EXFOR Feedback List.
A	Bossant	(Continuing Action) Send list of incorrect authors' names and titles to NRDC participants (WP2011-24).
A	Dupont Otsuka Mikhaylyukova Babykina Taova Varlamov	Add English translation information of Atomnaya Energiya under REFERENCE as listed in WP2011-26.
A	Babykina	Provide a list of English translation information of Russian journals (e.g., YF, IZV). (WP2011-26)
A	NDS	<i>Prepare a consolidated solution on the EXFOR format for covariance data coded under the keyword COVARIANCE (WP2011-32rev and 40).</i>
A	Mikhaylyukova	Include the Actions 45 and 46 of the 2010 NRDC Meeting summary the Guide for EXFOR Compilers:
A	All	(Continuing Action) Make corrections of entries for averaged kinetic energy and most probable kinetic energy, mass and charge listed in WP2010-31 as time permits.
A	Dupont	(Continuing Action) Distribute JANIS-TRANS Checker Log list on every preliminary TRANS-file.
A	Otsuka	(Continuing Action) Review the various types of gamma spectra in EXFOR, as well as the related quantities and units.
A	Otsuka	(Continuing Action) Update Dictionaries every four months.
A	Zerkin	(Continuing Action) Further develop EXFOR+ (interpreted/extended EXFOR format).
A	Zerkin	(Continuing Action) Every four months produce an EXFOR distribution with (a) full Dictionary distribution; (b) EXFOR in C4 and XC4 format; (c) Dictionaries in MS Access; (d) X4Map and X4Archive.
A	Zerkin	(Continuing Action) Generate and distribute list of errors to NRDC after every new EXFOR Master File creation.
A	Zerkin	(Continuing Action) Include DOI in EXFOR DB as defined in WP2009-25.
A	Zerkin	(Continuing Action) Development of a new database encompassing correction factors and relevant comments for suspect/erroneous data (X4-evaluated) presented in WP2010-19; keep NRDC informed about conclusions of discussions on new database.
A	All	(Standing Action) When coming across report codes in Dictionary 6, which differ significantly from what is shown on the report cover, submit additional explanation to NDS for inclusion.

## EXFOR software

A	NDS	<i>Assess potential problems (copyright) caused by opening an authorized access to the NDS collection of pdf articles proposed in WP2011-35.</i>
A	JCPRG	Continue development and testing of the digitizing software GSYS in cooperation with NDS and other centres.
A	NEA DB	Continue development and testing of the JANIS –TRANS Checker in cooperation with NDS and the other centres.
A	<i>Pikulina, Taova, Zerkin</i>	<i>Propose revision of “EXFOR processing and retrieval codes” in the NRDC Protocol for future co-operation in software development between centres.</i>
A	<i>Pikulina, Zerkin</i>	<i>Study the possibility of including X4+ converter code into the EXFOR-Editor in a form of independent executable module.</i>
A	Zerkin	Develop the program to generate X4+ from a standalone EXFOR entry.
A	Zerkin	Update ZCHEX based on comments from compilers (e.g., WP2011-36) as time permits.
A	Zerkin	Continue development of the EXFOR upload web tool.
A	All	(Continuing Action) Provide feedback to NDS on the existing CHEX version (on bugs as well as desired additions).
A	CNPD	(Continuing Action) Continue development and testing of the EXFOR-Editor in cooperation with NDS and other data Centres, taking into account compilers’ remarks.

## Evaluated data libraries