

## Conclusions and Actions of the 2009 NRDC meeting

### Conclusions

#### General

- C1 The next full NRDC meeting will be held in Sapporo, Japan, 20-23 April 2010.

#### EXFOR, General

- C2 If a title cannot be found for an entry, this entry should be entitled “No title”, and an explanation should be given as a comment.
- C3 It is emphasized that parameters, such as decay data (especially half-lives in activation measurements), and monitor data, as well as the description of the experimental technique (method, analysis etc.) as used by authors, must be properly compiled. The importance of this information was confirmed in the follow-up of EXFOR “outliers” found by WPEC subgroup 30.
- C4 It is emphasized that the source of numerical data must clearly be specified under STATUS (“Table x”, “Fig. x”, “sent from author”, etc.)
- C5 For works published by the n\_TOF collaboration, the new institute code 2ZZZNTF, and the abbreviation nTOF to be used under AUTHOR for the majority of authors’ names, should be used.

#### EXFOR, technical

- C6 The proposal on resonance quantities (WP2008-27) is now accepted:  
The resonance parameter flag in dictionary 236 is kept only for actual resonance parameters but not for quantities “at resonance” such as “cross section at resonance”, because for these quantities a product should be coded in REACTION SF4 (which is not allowed for quantities with the resonance parameter flag). New Reaction Types CSR and CRP are introduced for “cross section at resonance” and “partial cross section at resonance”.
- C7 The proposal of WP2009-14 on coding of natural isotopic abundances is approved:  
1. The value of the abundance used by authors may be given in coded form under SAMPLE, as described in WP2009-14  
2. The new modifier RAB is introduced for a cross section times natural isotopic abundance, divided by abundance of target of the first term of a REACTION sum.
- C8 The first proposal on institutes coded in INSTITUTE (WP2009-17) is approved:  
The keyword INSTITUTE will contain only the laboratories, institutes, or universities with which all authors are affiliated.
- C9 If the location of FACILITY is unknown, this has to be mentioned in free text.
- C10 A reference in which only the facility or general method is described should be coded under REL-REF with new code I or M. However, references describing the specific experiment continue to be coded under the keyword REFERENCE even when they contain no data.
- C11 All changes of any subentry must be reported in HISTORY of subent 001. If there are changes in coded information, they must be reported also in the affected

subentry.

- C12 It is recommended to include DOI number in entries, when available through Internet, according to WP2009-25
- C13 Whenever kT is given to characterize an incident spectrum, the heading KT should be used instead of energy, with appropriate numerical value.
- C14 Covariance information in AGS format is useful for EXFOR compilation.
- C15 It is recommended to give ranges of partial uncertainties as coded information under ERR-ANALYS (see Memo CP-D/530 Rev.)
- C16 It is recommended to describe in free text any additional important information related to partial uncertainties, which cannot be given in coded form.
- C17 The REACTION SF9 code EXP is made obsolete, as the data type 'experimental' is anyway the default for all REACTIONS and the use of EXP in some but not all cases is confusing.

### **EXFOR software**

- C18 Exfor Editor Workshops are very important for compilers, as they give them an opportunity to fully test and familiarize them with the program and help in its further development
- C19 It is recommended to hold workshops on EXFOR related software every two years in connection with the technical NRDC meetings. This will enable the participants to gain practice in the use of different software packages and will facilitate the software exchange among the centres and the collaboration in its design and development.
- C20 Concerning digitizing software, it is recommended to use *GSYS* for figures with good quality, and to use *Graf\_new* for figures with bad quality.
- C21 NDS will assist programmers from Sarov when they need expertise of EXFOR/CINDA dictionary designing the Exfor-Wizard application.

## **Actions**

### **General**

- A1 Dunaeva Add Actions A1 – A5 of last year's meeting (see WP2009-01) to NRDC Protocol

### **EXFOR, General**

- A2 All (Standing Action) All Centres should give highest priority to compiling new publications.
- A3 NDS (Continuing Action) Continue to develop sensible means of data communication between laboratories and the network via the major journals.
- A4 Zerkin Add link from EXFOR DB website on how to cite EXFOR entry (first author, full reference, EXFOR DB version, Web-address).
- A5 All (Continuing Action) Give priority to compilation of remaining papers from the 2007NICE conference.
- A6 All (Continuing Action) Make efforts to change all remaining upper case entries to lower and upper case. On retransmission, the old entries must

- be checked and any other necessary corrections must be done.
- A7 Zerkin (Continuing Action) Further develop EXFOR+ (interpreted/extended EXFOR format).
- A8 CJD Add information about JANIS Checker code to “Short Guide for EXFOR compilers”
- A9 Otsuka (Continuing Action) Update Dictionaries every three months.
- A10 Zerkin (Continuing Action) Synchronize every three months EXFOR backup-file distribution with (a) full Dictionary distribution; (b) EXFOR in C4 format; (c) Dictionaries in MS Access.
- A11 Dunaeva, Zerkin (Continuing Action) Send list of found errors to NRDC after every new EXFOR/CINDA dictionary transmission.
- A12 All (Continuing Action) Correct errors within own area (see also list in WP2009-03); all mistakes from such lists (produced according to Action A11) should be corrected in the next transmission (although mistakes which still remain from 2007 may take longer).
- A13 Zerkin Include DOI in EXFOR DB as defined in WP2009-25.
- A14 All If DOI is found through Internet, include DOI in all new entries, starting with symbol “#” in a new line after the relevant reference
- A15 Zerkin (Continuing Action) Introduce on public NRDC webpage the “Current compilation” after changing the following labels: “reserved” to “allocated”; “prelim” to “being compiled”; “not reserved” to “not allocated”.
- A16 NNDC (Continuing Action) For a trial period of one year (2009), NNDC will be fully responsible only for the compilation of articles from four journals (PR/C, PRL, NSE, CJP) and AIP conference proceedings (see modified WP2008-34).
- A17 NNDC, NDS (Continuing Action) Prepare report for the next full NRDC meeting describing the advantages and disadvantages of compilation on the basis of full journal contents (see Action A16).
- A18 Zerkin (Continuing Action) Add hyperlink on the main EXFOR page to the EXFOR Basics manual.
- A19 Otsuka (Continuing Action) Send list of recognised errors, based on analysis of the list formulated by OECD-NEA WPEC subgroup 30, to responsible centres.
- A20 NDS (Continuing Action) Coordinate compilations according to journal distribution as agreed at the 2008 NRDC meeting.
- A21 All Correct all mistakes from WP2009-04 till October 2009
- A22 NEA DB Distribute JANIS –TRANS Checker Log list on every preliminary TRANS-file.

### **Common EXFOR/CINDA dictionaries**

- A23 NNDC, NDS (Continuing Action) Investigate Dictionary 25 for differences in labels and units (e.g.: MUB, MU-B and MICRO-B used for ‘µb’), with the aim of achieving consistency.

### **CINDA**

- A24 NEA DB (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.
- A25 NEA-DB (Continuing Action) Correct errors detected during CINDA loading procedure, as described in WP2008-36.
- A26 NEA-DB (Continuing Action) Correct all CINDA lines, as described in WP2008-33

### **EXFOR, technical**

- A27 All Correct all mistakes listed in WP2009-18
- A28 Otsuka (Continuing Action) Review the various types of gamma spectra in EXFOR, and the related quantities and units.
- A29 All (Standing Action) When coming across report codes in Dictionary 6 which differ significantly from what is shown on the cover, submit additional explanation to NDS for inclusion.
- A30 All (Standing Action) Run CHEX in TRANS mode (not DATA mode) when checking new entries or TRANS files, to make sure that all important errors are found.
- A31 All (Continuing Action) Check error lists available on the NRDC web page, and correct as soon as possible (see also WP2009-02).
- A32 NDS (Standing Action) Assess the need for undertaking both trivial and non-trivial compilation corrections, and inform responsible centres.
- A33 All (Standing Action) Respond within two months concerning nature of correction (trivial or non-trivial) and whether correction(s) will be carried out by responsible centre - based on Action A32.
- A34 Zerkin (Continuing Action) Prepare a new database encompassing correction factors and relevant comments for suspect/erroneous data (X4-evaluated). Specify the format and issue an appropriate manual.
- A35 All If data are still not available from authors within three months after publication, provide full EXFOR compilation of the article without numerical data.
- A36 All (Continuing Action) Use alteration flags in col. 11 of ENTRY and SUBENT lines in re-transmission (also optional for all corrected lines in col. 80).
- A37 Zerkin Check the situation with distribution of dictionaries in MS Access format
- A38 Otsuka Prepare final version of memo "Uncertainty propagation in TOF-data"
- A39 Otsuka Add to Dictionary 34 new quantity modifier RAB (Times natural isotopic abundance, divided by abundance of target of first term of REACTION sum)
- A40 Otsuka Add to Dictionary 236 new combination: SIG,,RAB (Cross section times natural isotopic abundance, divided by abundance of target of first term of REACTION sum)
- A41 NDS Correct LEXFOR and EXFOR formats manual according to WP2009-17 for keyword INSTITUTE
- A42 Otsuka Add new codes I and M to REL-REF Dictionary according to WP2009-19

A43	NEA DB	Send list with incorrect authors names and Titles to NRDC participants
A44	NDS	Make corrections (trivial) according to the list from Action A43 in agreement with responsible centre
A45	NDS	Update LEXFOR according to proposals from WP2009-21, WP2009-22
A46	NEA DB	Prepare full list of recommendations for spelling of nuclides and mathematical expressions in free text of EXFOR entries
A47	Otsuka	Change flag of EXP (SF9) to Obsolete
A48	NDS	Prepare the list of existing entries with “NODATA” and add it to NRDC webpage
A49	Zerkin	Report about conclusions of discussion about new database encompassing correction factors and relevant comments for suspect/erroneous data (X4-evaluated).
A50	All	In retransmissions change obsolete code SIG/SUM (Memo 4C-4/175 rev) to SIG
A51	Otsuka	Update LEXFOR according to the first proposal from WP2009-17

### **EXFOR software**

A52	All centres	(Standing Action) Inform each other about EXFOR-related software being used and/or developed.
A53	Otsuka	Organise internal NRDC webpage “Tools for compilation” for all software that can be useful to compilers
A54	All	(Standing Action) Provide feedback on the digitizing software GSYS to JCPRG.
A55	All	(Standing Action) Provide feedback to NDS on the existing CHEX version (on bugs as well as desired refinements)
A56	Sarov, NDS	Continue development and testing of the EXFOR-Editor in cooperation with NDS and other data centres, taking into account compilers’ remarks.
A57	NEA DB	Make available JANIS –TRANS Checker code to NRDC community
A58	All	Provide feedback on the JANIS –TRANS Checker code