

**International Atomic Energy Agency
P.O.Box 100, A-1400 Vienna, Austria**

Memo CP-D/439

Date: 22 September 2005
To: Distribution
From: O. Schwerer

Subject: Dictionary transmission 9089
(with all new dictionaries in TRANS format and related format upgrades)

Dictionary transmission 9089 is available and can be downloaded, either from the NDS open area, subdirectories TRANS.DICTS and TRANS.DICTS.ARCHIVE_9089, or in zipped form from

<http://www-nds.iaea.org/exfor-master/backup/DICTS-2005-09-21.zip>

The CHEX version upgraded by V. Zerkin to work with the new dictionaries is available from

<http://www-nds.iaea.org/exfor-master/programs/zchex07/>

This time all "new" dictionaries introduced in 2004, such as the new quantity dictionary 236 and the new nuclides dictionary 227, are available in all formats including "TRANS" format. At the same time, some of the discrepancies between the TRANS and the Archive dictionaries were removed; e.g., the individual particle dictionaries 13, 28, 29 and 33 used in the TRANS format, were combined in one particle dictionary 33 as in the Archive (this was a conclusion of the 2003 NRDC meeting which is implemented with this transmission).

Apart from these structural changes, the update includes all changes proposed in memos since the last update (unless they need to be discussed at the NRDC meeting) and the "reaction type" modifications described in memo CP-D/438.

Below I give

- a brief summary of the most important structural changes and notes on individual dictionaries, and
- a table listing all TRANS and Archive dictionaries.

An updated description of the Archive dictionaries is submitted separately as memo CP-D/440.

Please note the following important changes and notes (all of which have been approved at earlier NRDC meetings):

- For the first time, the "EXFOR" dictionaries in "TRANS" format now contain all relevant old and new dictionaries (except for those which can be cancelled, see below).
- Dictionary 7 has now only conferences; book codes are moved to Dict. 207
- Dictionary 27 (Nuclides) was updated for the last time. It will be kept in the system, but from now on all programs should use the new dictionary 227 which is generated from the Nuclear Wallet Cards (with addition of codes for particles and natural elements).
- Dictionary 36 (Quantities) was updated for the last time. It will be kept in the system, but any additions and changes will from now on be made only in the new dictionary 236.
- TRANS dictionary 9 (Elements) is renamed 209 to be consistent with the new Archive dictionary 209.
- TRANS dictionaries 13, 28 and 29 are cancelled, and TRANS dictionary 33 (previously only for REACTION SF7 use) has now the same contents as Archive dictionary 33 (all particles with flags for use in different fields) (Implementation of Conclusion C4 of the 2003 NRDC meeting)
- TRANS dictionary 50 (List of dictionaries) is renamed 950 to remain at the end of the list
- The formats of the new dictionaries in the TRANS format follow as much as possible the archive format but because of the different record length in some cases there are some differences (like in some of the old dictionaries). These are obvious and trivial but will be documented separately.
- The EXFOR check program CHEX, which is using most of the dictionaries, was upgraded by V. Zerkin to work with the new dictionaries and can be downloaded from <http://www-nds.iaea.org/exfor-master/programs/zchex07/>

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EXFOR (TRANS) Dictionaries				Archive / DANIEL Dictionaries		
EXFOR Dict. #	Title	Arch. Source	Remarks	Arch / Daniel Dict. #	Title (Default: same as EXFOR)	Remarks
1	EXFOR System Identifiers	1		1		
2	EXFOR Information Identifiers	2		2		
3	Institute Codes	3		3		
4	Reference Type	4		4		
5	Journal Codes	5		5		
6	Report Codes	6		6		
7	Book and Conference Codes	7	New version: Conferences only. Books will be in 207	7		New version: Conferences only. Books will be in 207
8	Elements	8		8		
9	Compounds <i>Renamed 209 !</i>	27		-		
-				10	Standard reactions	Used where?
-				11	Forbidden reactions	Used where?
-				12	(Old) CINDA quantities	~=EXFOR Dict. 42
(13)	Particles (for keywords other than REACTION) <i>Cancelled !</i>	33	- Superseded by new 33 - Different from archive Dict. 13	!		
!				13	REACTION type	Superseded by 213 <i>No longer updated !</i>
-				14	REACTION "dimensions"	Used where?
15	History Codes	15		15		
16	Status Codes	16		16		
17	Related Reference Codes	17		17		
18	Facility Codes	18		18		
19	Incident Source	19		19		

20	Additional Information	20		20		
21	Method	21		21		
22	Detector	22		22		
23	Analysis	23		23		
24	Data Headings	24		24		
25	Data Units	25		25		
27	Nuclides (and natural elements)	27	Superseded by 227 + 209 <i>No longer updated !</i>	27	Nuclides, Natural Elements and Compounds	Superseded by 227 + 209 <i>No longer updated !</i>
(28)	Incident Particles (REACTION SF2) <i>Cancelled !</i>	33	Superseded by new Dict.33	-		
(29)	Product Particles (REACTION SF3) <i>Cancelled !</i>	33	Superseded by new Dict. 33	-		
30	Process Codes (REACTION SF3)	30		30		
31	Branch Codes (REACTION SF5)	31		31		
32	Parameter Codes (REACTION SF6)	32		32		
33	Particles Considered (REACTION SF7) <i>Now: Particles (All)</i>	33	New version contains all particles as in archive	33	Particles (All)	
34	Modifiers (REACTION SF8)	34		34		
35	Data Type (REACTION SF9)	35		35		
36	Quantities (REACTION SF5-8)	36	Superseded by 236 <i>No longer updated !</i>	36		Superseded by 236 <i>No longer updated !</i>
37	Result	37		37		
42	CINDA Quantities	12		-		
43	NLIB for Evaluated Libraries	43		43		
-				44	Data Libraries	
add 45	(same as Archive)	45		45	New CINDA quantities	New (2004)
add 47	(same as Archive)	47		47	Old/New CINDA quantities	New (2004)

add 48	(same as Archive)	48		48	Alphabetic energy values	New (2004)
50	List of dictionaries Renamed 950 !	-	Produced by DAN2X4	-		
add 52	(same as Archive)	52		52	CINDA Reader codes	New (2004)
Add 113	(same as Archive)	113		113	Web quantities	New (2004)
-				124	Data headings for plotting	(for old NNDC system)
-				125	Data units for plotting	(for old NNDC system)
-				136	Quantities for plotting	(for old NNDC system)
Add 144	(same as Archive)	144		144	Data Libraries for new CINDA	New (2004)
Add 207	(same as Archive)	207		207	Book codes	New (2004)
Add 209	(same as Archive)	209		209	Compounds	New (2004) Replacing 27 (together with 227)
Add 213	(same as Archive)	213		213	REACTION type with CINDA quantity	New (2004) Replacing archive Dict.13
Add 227	(same as Archive)	227		227	Nuclides and nat.isot.mixtures	New (2004) Replacing 27 (together with 209)
Add 235	(same as Archive)	235		235	Work types	New (2004) (for CINDA)
Add 236	(same as Archive)	236		236	Quantities (REACTION SF5-8)	New (2004) Replacing 36
950	List of dictionaries (previously 50)	-	Produced by DAN2X4	-		