

Comments on CHEX

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Comments of CHEX

A. These my comments were already considered and proper corrections were done in CHEX:

- 1) I,M in REL-REF.
- 2) Limits of uncertainties.
- 3) "3" in MONIT-REF for evaluated libraries.

B. Recent comments proposed for consideration:

1)Entry 41375.002:

** Illegal code in field 4
 REACTION 1(50-SN-116(N,G)50-SN-117,,MLT,,RES) Average 41375002

** Illegal code in field 4
 REACTION 1(50-SN-116(N,G)50-SN-117-M,,MLT,,RES) Average 41375002

Comment:

When I added SN-117 in SF4 according to Naohiko's comment, CHEX gives these messages. Probably, for CHEX this is resonance parameter and SF4 has to be empty for res. par.? Naohiko insisted that SF4 is not empty.

2) Entry 23103

** Nonmonatonic data field E-LVL-INI
 1.675 0.0 0.25 0.03 23103010

Comment:

Really, I decided this problem: split this Subent into two Subents. But this message of CHEX :
 Nonmonatonic data field E-LVL-INI
 looks very strange, because they are monotonic...
 Also Nonmonatonic -> Nonmonotonic (a -> o)?

3)

ENTRY 41191

** Illegal floating point number

** Illegal data field 41191002
 ERR-ANALYS (DATA-ERR,3.,10.) Not specified, probably total.
 ^^^^^^^^^^^^^^^^^^^

ENTRY 41290

** Illegal floating point number

** Illegal data field

41290002

ERR-ANALYS (DATA-ERR,1.,30.) Total error, mainly due to
 ^^^^^^^^^^^^^^^^^^

Comment:

These two messages of CHEX are not understandable for me.

4)

ENTRY 41427

** Check use of heading TEMP 41427002

** Check use of heading TEMP 41427003

Comment:

These messages are not understandable, because in Subents:

REACTION	(92-U-235(N,G)92-U-236,,SIF/TMP,,AV)	Self-indication	41427	2	3
	function in capture cross-section of U-235,		41427	2	4
	TEMP- sample temperature.		41427	2	5

...

EN-MAX	EN-MIN	TEMP	DATA	DATA-ERR	41427	2	12
EV	EV	K	NO-DIM	NO-DIM	41427	2	13
4.65	2.15	100.	0.38	0.01	41427	2	14

REACTION	(92-U-235(N,F),,SIF/TMP,,AV)	Self-indication	41427	3	3
	function in fission cross-section of U-235,		41427	3	4
	TEMP- sample temperature.		41427	3	5

.....

EN-MAX	EN-MIN	TEMP	DATA	DATA-ERR	41427	3	12
EV	EV	K	NO-DIM	NO-DIM	41427	3	13
4.65	2.15	100.	0.50	0.01	41427	3	14

5)

ENTRY 41427

** Incorrect units, should be dimension THK in field 3 41427004

In Subent:

EN-MIN	EN-MAX	THICKNESS	DATA	DATA-ERR	41427	4	12
EV	EV	MM	NO-DIM	NO-DIM	41427	4	13

Comment:

Sometimes thickness of sample is given in units like millimetres and corresponding values in atoms/barn units are not given in an article. Probably, "MM" unit could be added in dictionaries as the unit for thickness.

6)

ENTRY 41507

** Incorrect units, should be dimension YLD in field 3 41507003

Comment:In Subent:

E-MIN	E-MAX	DATA-MAX	41507	3	14
MEV	MEV	PRT/FIS	41507	3	15

This message of CHEX is not understandable, because PRT/FIS is the unit for yield.

Memo CP-A/172

I have my comments for ZCHEX

1. Entries with new heading codes (O1851.006 in PRELIM.O044)

Because of two new codes **EN-RES-NM** and **EN-RES-DN** in COMMON section, ZCHEX gave the following message:

```
MAJOR ERRORS FOUND *** must be corrected before checking will continue
```

and checking was terminated without further checking. This is inconvenient for compilers who wish to check trans files including new heading codes. In order to remove mistakes from trans files as much as possible, compilers should be able to continue checking even if new heading codes are used the trans file.

2. Relative energy in REACTION and EN-SEC (O1853.002 in PRELIM.O044)

Angular distribution of centre-of-mass of two outgoing proton (i.e., outgoing angle of ^2He) is coded as

```
(1-H-2 (P, N) 2-HE-2, PAR, DA, P+P)
```

with relative energy between two protons under the heading E-RL which is defined as

```
EN-SEC      (E-RL, P+P).Relative energy between two protons
```

. Though the quantity code PAR, DA, *** is defined in dictionary 236, above coding (REACTION SF7 and EN-SEC) is not accepted by ZCHEX:

```
** Illegal code in                field 7
** End of code string not found
EN-SEC      (E-RL, P+P).Relative energy between two protons
              ^^^
```