

Memo CP-D/195

2 August 1989

To: Distribution

From: O. Schwerer *O. Schwerer*

Subject: 1) Differential thick target yields
2) Comments on TRANS A021

1) Differential thick target yields

As one entry of TRANS-A021 contains a new type of differential thick target yields, we suggest that, in addition to the pending proposal on the coding for thick target yields (TTY) in memo CP-C/178, also the coding of differential thick target yields (TTY/DA, TTY/DE, TTY/DA/DE) should be discussed at the forthcoming NRDC meeting. Since NNDC proposed the changes for TTY in CP-C/178, we would like to ask them to extend their proposal to differential thick target yields so that there will be a consistent coding for all types.

The following entries of differential thick target yields exist at present

- Entry A0388 (TRANS-A021) with the quantity (P,X)-O-G-O,PAR,TTY/DA

(Note: on TRANS-A021 the code (P,X),PAR,TTY/DA,G is used which should be corrected to the code given above, see part 2 of this memo.)

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For this quantity (which is new to dictionary 36 because of PAR in SF5) a new unit

G/PT/SR

is used which obviously means "gammas per incident particle per steradian".

This unit and a new dimension code (e.g. TYDA) for dictionaries 25+36 should be discussed at the NRDC meeting.

It should be noted that if, at a later stage, similar data for outgoing neutrons rather than gammas should come up, keeping units and dimension codes consistent could become a problem.

- Entry D2001 contains TTY/DE and TTY/DA/DE with units N/PART/MEV and N/PT/MEVSR. Their dimension codes 1/E and 1/AE should be changed to new ones in order to distinguish them from units 1/MEV and 1/SR/MEV.

2) TRANS A021

The STATUS keyword (compulsory) is missing in entries A0366, A0367, A0368, A0372, A0374, A0376, A0377, A0378, A0380, A0383, A0384, A0388.

Entry	<i>Subentry</i> Subject	Line(s)	Comments on TRANS ^{A021} 1232
A0358	1	9	HISTORY year should probably be 89
A0366	82*)		Columns for DATA 1 and ERR-T 1 empty, should be deleted. Suggested sequence of columns: EN, DATA-MAX 1, DATA 2, DATA-MAX 2, ERR-T 2, DATA 3, DATA-MAX 3, ERR-T 3, DATA 4, ERR-T 4, DATA 5, DATA-MAX 5, ERR-T 5
	83*)		Column for ERR-T 3 empty, delete
	84		Suggest to place column DATA-MAX 2 after DATA 2
	85		Suggest to place column DATA-MAX 2 after DATA 2 and DATA-MAX 3 after DATA 3
	86*)		Columns for DATA 2 and ERR-T 2 empty, delete

*) Retransmission requested

86,87,88,89,90,) Suggest to always place column DATA-MAX
91,92,94,96,97,) immediately after DATA column with same
101,102,103,104,) pointer (if both are used), as you did in
105,106,107,109,) subentry 99.
112,114)

87*) 4 empty columns, delete
(DATA 1,2 + errors)

103*) Delete empty DATA-MAX 1 column

A0367 31 5,6 Free text may start only in col. 12

A0371*) 1 8 HISTORY year should probably be 89
2 4 DECAY-DATA should not be given for stable
nuclides (except X rays). Also, DG (decay
ys) refers only to ys after β -decay or
from (long-living) isomers but not from
de-excitation of shortlived levels. For
such prompt ys the code G is used
instead. Probably this line could be
replaced by
PART-DET (G)

4,5 Delete empty line between these 2 lines

5 EN-SEC: since E refers to an outgoing
particle but not to an excitation energy,
use either (E,G) or
(E-EXC,3-LI-7)
(which in this case are physically
equivalent)

A0381 1 8 Delete author's initial for priv. comm.
11 HISTORY year should probably be 89

Entry A0381 appeared twice on this TRANS.

A0384 3 20 5th heading should be DATA-ERR 2.
9 23)
32 21,23) DATA not given
41 16-22)

*) Retransmission requested

<u>A0387</u>	1	12	Delete author's initial for priv. comm.
	<u>7*)</u>		Illegal use of multiple reaction formalism (which may be used only in the cases listed explicitly in the EXFOR Manual). In particular integral and differential cross sections should be compiled in separate subentries. Also, DATA-ERR has no pointer and, therefore, refers neither to DATA A nor to DATA B.
A0388	2-7*)		REACTION (P,X),PAR,TTY/DA,G,,EXP: If SF3=X, a particle or nuclide <u>must</u> be given in SF4 to complete the definition of the reaction (SF1-SF4). Therefore the γ particle must be coded in SF4 rather than SF7: (P,X)O-G-O,PAR,TTY/DA,,EXP The new unit G/PT/SR will be entered into dictionary 25 after discussion of the TTY quantities at the forthcoming NRDC meeting.
A0390	2-7		RAD-DET need not be coded if DECAY-DATA is given. If coded, isomer extensions must be given where relevant (subentries 2,3,7)
A0391			See comment on A0390
A0392	1	7	See comment on A0381.001
	7	62	EN-CM should probably read 1.775
A0393*)	2,4		ERR-T given twice (in subentry 1 in PER-CENT and in the respective subentries in MB). Delete one of them, or should one of them be changed to DATA-ERR?
A0394			DECAY-DATA keyword could be omitted because it contains only the nuclide and RAD-DET also given. RAD-DET requires isomer extension when relevant (subentries 4,5,8,9)
A0395			See comment on A0390

*) Retransmission requested