

30 May 1991

To: Distribution

From: O. Schwerer *O. Schwerer*

Subject: Comments on TRANS-A024

Please find attached our comments on TRANS-A024. In several cases, important mistakes could not be corrected by NDS, because not all necessary information was available or because restructuring of a subentry is required. In these cases - labelled by *) - correction and retransmission by CAJaD will be very important.

The most important mistakes were:

- REACTION code and units not consistent (entry A0294)
- distinguishing different quantities by a FLAG instead of using different REACTION codes (entries A0431, A0434, A0471)
- missing incident particle energy (entry A0476)
- messed-up subentry (with missing lines and other mistakes: subentry A0476.003).

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Comments on TRANS A024

Entry	Subent	Line(s)	Comment
A0294 *)	2-19		Units DPS/MUAHR not legal for cross sections (SIG). Data are probably some type of thick-target yield.
	14	3,4	41-NB-0 not legal because Nb is monoisotopic. Replace by 41-NB-93.
	17-19		73-TA-0 should probably be replaced by 73-TA-181 because it is nearly monoisotopic (99.988%). Since the contribution of TA-180 is very probably much less than 1% the reactions should be
	(Subentry 17):		Replace 73-TA-0(P,X)74-W-181 by 73-TA-181(P,N)74-W-181
	(Subentry 18):		Replace 73-TA-0(D,X)73-TA-182 by 73-TA-181(D,P)73-TA-182
			Replace 73-TA-0(D,X)74-W-181 by 73-TA-181(D,2N)74-W-181
			The reaction 73-TA-0(D,X)73-TA-183 must be a <u>mistake</u> altogether because 73-TA-183 cannot be produced with deuterons on Ta.
	(Subentry 19):		Replace 73-TA-0(A,X)75-RE-183 by 73-TA-181(A,2N)75-RE-183.
			Replace 73-TA-0(A,X)75-RE-184 by 73-TA-181(A,N)75-RE-184.
A0408	7	14	Pointer for DATA 6 missing.
A0431) A0434)	2,3		REACTION: 73-TA-0 should be replaced by 73-TA-181(99.988%) <u>unless</u> author believes that 73-TA-180 significantly contributes to measured quantity.
A0431 *) A0434 *)	2,3 2,3,4		1) Many data lines: ISOMER column should be <u>blank</u> (not = 0.) if the nuclide has <u>no</u> metastable state. (This applies to about half of the data lines of these subentries.)

*) Retransmission requested.

Entry	Subent	Line(s)	Comment
			2) Independent and cumulative production cross sections must not be distinguished by a FLAG but with <u>different REACTIONS</u> . For these subentries, the multiple reaction formalism (using pointers) should be used, e.g.
		REACTION 1	73-TA-181(P'X)ELEM/MASS,IND,SIG,,,EXP
		2	73-TA-181(P,X)ELEM/MASS,CUM,SIG,,,EXP
			(<u>or</u> the data should be compiled in separate subentries).
A0434	3	81)	State M2 unknown for RE-182
	4	78)	
A0434	4	81,82	All independent variables repeated.
A0435	2,3,4		ISOMER: see comment on A0431.
A0436	2	74,76	EN value repeated, probably mistake.
A0458	1)		Reference R,LENIN90 should be corrected to C,90LENING.
A0460	1)		
A0461	1)		
A0466	1)		
A0460	3	4	Delete extra decimal point.
A0462	1	7	Change PR/L to PRL.
A0471 *)	2	18	This line should be deleted (correct version = line 19).
	2-6		See comment on A0431 and A0434: Use different REACTIONS for independent and cumulative production cross sections.
A0474	14	7	EN-CM should be EN-ERR.
A0476	1	10 27	Keyword METHOD misspelled. DATA-ERR1 should be DATA-ERR2.
A0476 *)	2,3,4		1) EN-EXC in DATA section should be E-EXC. 2) Incident particle energy (EN) missing.

*) Retransmission requested.

Entry	Subent	Line(s)	Comment
A0476 *	3		This subentry is messed up:
		line 10:	record no. repeated. Line with SAMPLE is record no. <u>11</u> REACTION: 73-TA-0? (see comment on A0431).
		line 13:	- ENDBIB misspelled; N1 missing (10) - col. 67-79 missing
		line 15:	- DATA misspelled; N1 and N2 missing (12 and 9) - record number = <u>15</u>
		line 16:	- EN-EXC should be E-EXC (see above)
		line 17:	- heading must be DATA 6, DATA 7, DATA 8; fields 3-6 should be blank - record-number = <u>17</u>
		lines 28, 29	<u>missing</u> .

*) Retransmission requested.