bnl aui
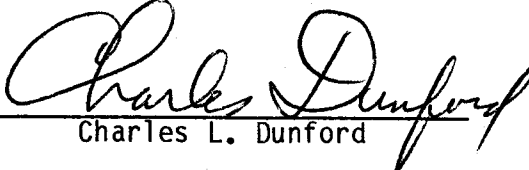
National Nuclear Data Center
Bldg. 197D

(516) 282 ⟩ 2901, 2902
FTS 666 ⟩

4C-1/182

DATE: August 27, 1986

TO: Distribution

FROM: V. McLane

SUBJECT: TRANS 2108, 2109, 2110, 2111, 2112

Enclosed are comments on TRANS 2108, 2109, 2110, 2111, 2112

Charles L. Dunford

VM:al

Distribution
V. Manokhin
J. J. Schmidt
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NNDC (5)

cc. Arcilla
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Schwerer
Seitz

AN	SAN	SEQ	COMMENTS
21487	2, 5, 11, 14, 18, 22	3	(N,X)1-H-1,,SIG) for proton emission
	3	3	SF5 should have CN
21589	12		Illegal pointers use MONIT1, etc.
		7	Keyword should be DECAY-MON
21634	5	6	Keyword should be DECAY-MON
21653	1	3	Missing parenthesis in issue # field
	12	3	Missing SF4
21741	4	4	Keyword should be MONITOR, code EN-NRM
21798	1	18	Delete, used only output particles for reaction not input flux
21837	2-4	6	Should have pointer 1
21886	1	10, 11	Confusion with use of pointer + MONIT1, MONIT2 use only one or other
21954	7-9	3	SF3 should be EL
* 21976	2, 14, 26, 39 6, 18, 24, 47	3	Delete G+M from SF4, SUM from SF6 Should these have FCT in SF8 of second reaction?
* 21997	3-7, 9, 15, 16		Illegal multiple reactions
21999	Many	3	Delete G+M where it is equal to total
	10-12, 22, 24		Should these have FCT in SF8 for second reaction?
	28		Is this total or -G,M+?

* Retransmission Requested

AN	SAN	SEQ	COMMENTS
TRANS 2108			
20019	131	3	Missing SF4
		12	Code DEP missing
20020	22	3	Missing SF4
		6	Code DEP missing
20197	8	3	Missing SF4
20341	8	3	Missing SF4
	10, 13		Deletion flag on SUBENT record only indication subentry is deleted
	16, 17	3	Missing SF4
	18		No secondary energy given
20388	3	3	Modifier should be FIS, no entry under INC-SPECT
20582	2	10	No MISC data heading, delete line
20693	1	33	ERR-3 not given in SAN 8, 10, 12, 13, 17 - should be put in proper subentries.
20864	1	3	Illegal date field 8000
20986	6	18, 19	Illegal trailing comma
21004	1	3	Missing parenthesis in issue # field
21049	4	6	COMMENT should be changed to MONITOR
21314	1	18, 21, 23	Illegal pointers - Reaction pointers used in SAN 3-6, use MONIT1, etc.
		23	Delete G+M from SF4 and SUM from SF6
21374	2, 4-6, 8-10	3	Missing SF4
	11, 13-15		Missing SF4, should have STATUS (DEP)

*

AN	SAN	SEQ	COMMENTS
20961	2, 3, 4	3	Better coded as proton emission
21069	1		No indication that data are given in 21102
21095	5	3	Quantity should probably be coded as (-----,PR,NU,HF,MXW)
21098	3	3	SF4 missing
21102	2	3	Better coded as proton emission
21143	1	7	Second author's initials missing
21247	1	6, 7 37, 38	Delete initial from author field Illegal use of pointers
21279	1	6	Change comma to period after author's third initial
21284	1	6	Change comma to period after author's second initial
21300	1	11	Should be DG
21625	2 3 4	8 9 9	Should be under DECAY-MON
21901	1		Illegal use of pointers
21925	1	22	Probably total reaction, delete -G,M+. Metastable state 20.18 msec decays 99.997% by IT
21976	1	12	Should be DG

* Retransmission Requested

AN	SAN	SEQ	COMMENTS
TRANS 2109			
20033	1	3, 4	No correction done
			Requested correction, put OAW as
	5		first reference as per CINDA
			Reaction should read
			(38-SR-86(N,2N)38-SR-85-G,M+,SIG)
20036	6	6, 7	Headings are E-MAX and E-MIN
20042	2	4	Parenthesis should start in column 12
20049	2-6, 8	3	Should have RV in SF8 (modifier)
20089	4	3	SF4 should be 47-AG-108-G according to half-life given
20149	1	3	Report # should be first reference
* 20323	2		Data is given as average of range of Q values, please recode
20324	1	5	Change comma to period after first author's initial
20486	1	36	Should be DG
20552	1	24	Should be DG
	3		Code monitor value in data section
20721			Entry on file twice
	4		Illegal use of pointers
20748	1		Illegal use of pointers
20765	1	3	Issue # subfield missing parenthesis
20907	1	7	Delete initial from author field
		32, 33	Illegal use of pointers
20914	1	3, 4	NP-17644 first reference in CINDA

AN	SAN	SEQ	COMMENTS
TRANS 2111			
20582	2	10	Illegal code - delete, not miscellaneous data, legal heading.
20740 21076	999	99999	* Illegal on ENDENTRY record
20864	1	3 33	Illegal month in date field Delete - not output particle of reaction studied.
21183	1	19	Remove ground state code from SF4 - total cross section for reaction
21250	1	21	Should be "DG"

Many subentry one were transmitted with no corrections marked. We were unable to find difference from data we have on file.

20019	20673	21115
20020	20693	21122
20197	20753	21155
20275	20864	21183
20280	20889	21192
20312	20912	21227
20317	20958	21256
20388	20986	21345
20396	21017	21372
20397	21023	21374
20416	21039	21419
20504	21049	21487

AN	SAN	SEQ	COMMENTS
TRANS 2110			
20014	1	46	COMMENT - should go under INC-SPECT
20540	5	3	/SUM missing from SF6
21649	1	23	Delete G+M and SUM
21957	7,8,9,11	3	SF3 should be EL
21976	1	12	Should be "DG"
* 21980	13	3	needs multiple reaction for use of pointers. Should thick sample data be coded?
21984	95	3	SF4 Should be 8-0-<u>16</u>
* 21988	2	3-8	Don't understand sum of same reactions?
21989	2	3	SF4 should be 1-H-<u>2</u>
* 21994	2-8	3,4	Pointers missing, also in data.
* 22000	3,5,7	3	Explain use of DERIV in SF9
* 22002	12,13,14	3	Explain use of DERIV in SF9
22003	2	187	Pointer missing in field 6

<u>The following data sets have illegal multiple reactions</u>

Please retransmit all.

21980/10, 11, 12
21990/2, 6
21992/3, 7, 8, 9   (see memo 4C - 1/170)
22001/13, 14, 15, 16

<u>*Retransmission Requested</u>

AN	SAN	SEQ	COMMENTS
20860	1	3	Missing parenthesis in issue field
20933	12		Half life for ground state not given.
20983	1	35	Heading of field 3 should be E-NRM
21289	1	15,16	Illegal pointers, add codes (MONIT1), (MONIT2) to code string
21300	1	11	Code should probably be DG
21339	4	4	Delete G+M and SUM
	12		Data listing sent, see attached
21376	3	3	DERIV should be SF9, comma missing.
21400	3	4	Delete trailing comma
21421	2	3	SF4 missing, probably DERIV should be deleted

(* appears to the left of the 21339 row)

Many entries have corrections marked, but no HISTORY record.

* Retransmission Requested

AN	SAN	SEQ	COMMENTS
TRANS 2112			
20033	1	14	Code monitor value in DATA sections
20087	6	3	41-NB-92-M in SF4
		6	Illegal code
20092	1	11	Illegal code, should be GEMUC
		12	Code monitor value in DATA section
	8	3	SF4 should be 30-ZN-69-G
20347	1	11	Code monitor value in DATA section.
20477	1	19	SF4 should be 27-CO-60
20554	1	22	SF1 should be 33-AS-75 SF4 should be 33-AS-76
20554	11	6	No flag in data table. Change keyword to CORRECTION, delete code.
20703	2	6	Code monitor value in DATA section
20721	62	6	Delete - G in SF4.
	63	5	Delete - G in SF4.
		5,6	Illegal pointers, add codes (MONIT1), (MONIT2) to code string
20772	1	3	Missing parenthesis in issue field
20772	1	32	Duplicate record, delete
20772	2	3	Is this total decay from metastable states (decays 100% by IT)
20826	2	3	Quantity should be (,,SIG,,AV)
20854	10	13-15	Delete E-EXC-MIN, data is estimate of total inelastic
	11	10	Add E-EXC-MIN=112.KEV to COMMON

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ENTRY         21339      801104                        21339  0      1
SUBENT        21339001    801104                        21339  1      1
BIB              14          32                         21339  1      2
REFERENCE     (J,ZP,166,477,6202)                       21339  1      3
TITLE         -SOME CROSS SECTIONS OF (N,NA)-REACTIONS IN THE ENERGY 21339 1 4
              RANGE 12-19 MEV.- (IN GERMAN)             21339  1      5
AUTHOR        (M.BORMANN,S.CIERJACKS,R.LANGKAU,H.NEUERT) 21339 1      6
INSTITUTE     (2GERHAM)                                 21339  1      7
FACILITY      (VDG,2GERHAM) 3 MEV VAN DE GRAAFF.        21339  1      8
              (CCW,2GERHAM) 150 KV COCKCROFT WALTON ACCELERATOR. 21339 1  9
INC-SOURCE    (D-T  ) DEUTERON-TRITIUM REACTION. THIN TRITIUM 21339 1 · 10
              CONTAINING TITANIUM LAYER. THIS LAYER WAS REGULARLY 21339 1 11
              REPLACED BY A NEW ONE IN ORDER TO AVOID D-D-REACTIONS 21339 1 12
              BY ACUMULATION OF DEUTERIUM IN THE TARGET. 21339  1     13
METHOD        (ACTIV) ACTIVATION ANALYSIS. MEASUREMENTS AT DIFFERENT 21339 1 14
              INCOMING NEUTRON ENERGIES ARE DONE SIMULTANEOUSLY IN 21339 1 15
              ORDER TO AVOID RENORMALIZATIONS TO THE SAME DEUTERON 21339 1 16
              FLUX, WHICH INCREASES THE ERROR.          21339  1     17
DETECTOR      (LONGC) LONG COUNTER FOR NEUTRON FLUX DETERMINATION. 21339 1 18
              .BORIC ACID COUNTER FOR THE DETECTION OF THE  GAMMAS. 21339 1 19
SAMPLE        .NATURAL ELEMENTS FROM MERCK, DARMSTADT.  21339  1     20
CORRECTION    .BACKGROUND.                              21339  1     21
ERR-ANALYS    .TOTAL ERROR CONTAINS STATISTICAL ERROR, NORMALIZATION 21339 1 22
              ERROR (I.E. STATISTICAL ERROR OF THE REFERENCE 21339 1  23
              MEASUREMENT + UNCERTAINTY OF THE REFERENCE CROSS 21339 1 24
              SECTION), UNCERTAINTIES DUE TO COMPTON TAILING UNDER 21339 1 25
              THE PHOTOPEAK OF HIGHER GAMMA ENERGIES AND UNCERTAIN- 21339 1 26
              TIES ABOUT THE LEVEL SCHEMES. IN SOME CASES THE 21339 1  27
              SUPERPOSITION OF GAMMA LINES OF DIFFERENT ISOTOPES 21339 1 28
              WITH NEARLY EQUAL HALFLIVES ADDS TO THE UNCERTAINTY. 21339 1 29
COMMENT       .LEADING EDGE OF EXCITATION FUNCTION AGREES WITH 21339 1  30
              CALCULATIONS BASED ON STATISTICAL THEORY. 21339  1     31
STATUS        (NDD ) DATA TAKEN FROM NEUDADA.           21339  1     32
HISTORY       (800206T) G.C.                            21339  1     33
              (800222E)                                 21339  1     34
ENDBIB           32           0                         21339  1     35
NOCOMMON          0           0                         21339  1     36
ENDSUBENT        35           0                         21339 199999
SUBENT        21339012    860425                        21339 12      1
BIB               5           5                         21339 12      2
REACTION      (31-GA-69(N,P)30-ZN-69-M,,SIG)           21339 12      3
MONITOR       (13-AL-27(N,A)11-NA-24,,SIG)             21339 12      4
DECAY-DATA    (30-ZN-69-M,13.8HR,DG,438.)              21339 12      5
STATUS        (SCSRS)                                   21339 12      6
HISTORY       (860425A) DATA ADDED BY NNDC             21339 12      7
ENDBIB            5           0                         21339 12      8
COMMON            3           3                         21339 12      9
EN-NRM        MONIT       MONIT-ERR                    21339 12     10
MEV           MB          MB                           21339 12     11
 1.4100E+01 1.1800E+02 7.0000E+00                       21339 12     12
ENDCOMMON         3           0                         21339 12     13
DATA              4           5                         21339 12     14
EN            EN-ERR      DATA        DATA-ERR          21339 12     15
MEV           MEV         B           PER-CENT          21339 12     16
 9.6000E+00 4.0000E-01 2.3600E-02 1.6000E+01            21339 12     17
 1.5200E+01 4.0000E-01 4.2000E-02 1.7000E+01            21339 12     18
 1.6000E+01 4.0000E-01 4.0400E-02 1.7000E+01            21339 12     19
 1.7100E+01 4.0000E-01 3.3600E-02 1.8000E+01            21339 12     20
 1.8000E+01 4.0000E-01 3.0100E-02 1.8000E+01            21339 12     21
ENDDATA           7           0                         21339 12     22
```