

MEMORANDUM 4C-2/61

Date : 11th February 1975
From : Anton Schofield
Subject : Comments on EXFOR tapes
1. Introduction
2. General remarks (open for discussion at 11th 4C-Meeting)
3. Detailed comments
4. Listing of formal errors
5. Listing of corrected bookkeeping errors

1. This memorandum reports errors found during the conversion of EXFOR tapes 1023 to 1035
3013 and 3014
4014 to 4015
to the internal NDCC format. Formal errors found within individual records will be listed separately. Errors which we call 'bookkeeping errors', and which impede the processing of the tapes (N1, N2 wrong, absence of headings in non-empty columns etc...) we had to correct; the corrected records are listed separately. In paragraph 3 we will not mention errors already signalled by other centres.
2. a) In tapes 1024 and 1032, different sets of Legendre coefficients for the same neutron energy are given in the same table with no differentiating flag. When this table is resorted either by Centre or user points with same EN and order of coefficient get randomly exchanged. This produces incoherent sets of parameters on the output file. Future use of these sets can have unforeseeable results. Could we ask that independent sets of coefficients be flagged, or coded in different tables?
b) Could we ask that the same standard (or set of standards) be defined throughout a data table. In future, it would seem adequate to be able to refer to one table as a whole for any subsequent manipulations (tagging of standards, eventual renormalizations). For example 10 323.002 (TRANS 1032) could be broken up into two subentries; the same for 10 121.027-031 (TRANS 1033).

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3.

TRANS 1023

10046.032	ALTER FLAG	Could be 'I'
10145.001	COMMON	EN-ERR→EN RSL
10145.004,015, .020	ISO-QUANT, HALF-LIFE	MS doubtful M1 "
10298.002 TO.005	DATA	EN-ERR→EN RSL

TRANS 1024

10198.002	DATA 2	(Unit) MEV→MILLIEV
10277.004,008, 014,020, 028	DATA	Different sets of Legendre coefficients are given in the same table for the same EN. See general remarks 2. a).
10277.016	EN, Q-VAL EXFOR manual (I.4. (2)).	Columns not in the order defined in
10277.022	Q-VAL, EN	Sequence not monotonous.
10306.All	EN-ERR	Meaning not explained.
10308.All	COMMON	EN-ERR→EN-RSL

TRANS 1025

10287.028 TO106	DATA-ERR	Value 0.0 may be dangerous to certain users. See remark Memo 4C-2/49
10376.004	STATUS	(DEP) should apply here.

TRANS 1026

10259.005,006	DATA	Numerical values are the same. Is this a duplication ?
10286.005-008 012-018 020-024 027,029 031-039 044-052	DATA-ERR	Same remark as 10287.028-

10343.002	ISO-QUANT	EL→COH. See also 4.
10354.002	STANDARD	HF-182→HF-178. See 4.
10356.001	COMMON	EN-ERR→EN-RSL

TRANS 1027

No comments

TRANS 1028

10074.042-053	Alter flag	Could be 'I'
10137.004,005	STATUS	Change to HISTORY
10113.002-006	HISTORY	Missing
10210.002-005	"	"
10300.002	NUC-QUANT	PAR→PR. See also 4.
10339.002-004	HISTORY	Missing
10333.004	MISC-COL	Missing in table
10361.005	HL	When a H.L. different from that of the state of the residual nucleus is given in the table, it would be convenient for checking purposes to underline the fact in the comment (PART-DET) by indicating e.g. the level observed. This would help to confirm in this case that 'MS' on 'GND' is not missing in the iso-quant.

TRANS 1029

10153.002	EN	Not monotonous for constant E.
	Rec.45,46	Same E (gamma), different level energies
	MISC	Why not E-LVL ?
10 383.003	ISO-QUANT	POT→EL, POT. See also 4.

TRANS 1030

10288.003	HL	30 msec activity not found in decay scheme. 750 Kev corresponds to 64 sec.
10331.008,014	All	These entries duplicate 003,004 respectively.

TRANS 1031

10182.001	STANDARD	Use of 2 standards not explained in the comment.
10195.002	HISTORY	Missing
10221.024, 026 028, 030 032	N-SOURCE	Proton energy, indicated is 2.5 Mev, whereas 3.64 MeV is indicated for ratio measurements probably corresponding to these (DEP) data.
.024-038	DATA	EN—ERR→EN—RSL

TRANS 1032

10007.002, 007 012 .003, 008 013	ANALYSIS ISO-QUANT STANDARD	P (o)→B (o) Modifier RS in conflict with unit MB/SR. Numbers seem to agree with unit. Besides, STANDARD would not be given with RS. NDCC assumes no modifier given.
10008.002 .003 .005	ANALYSIS ISO-QUANT Record 303	P (o)→B (o) Same remark as for 10007.003- with RSL. EN decreases locally.
10010.003	DATA ISO-QUANT	Same remark as TRANS 1024, 10277.004- Same remark as for 10007.003- with RSL.
10010.005 .007 .009	ISO-QUANT DATA Record 23 Record 82 Record 93	Modifier sequence not that of Dictionary 14 See 4. Moreover, same remark as for 10007.003- for modifier RS. Monotonicity rule (Manual, 1.4) not respected. EN decreases locally. " " " " constant.
10323.002	General	See general remarks 2.b).

TRANS 1033

10121.002 .004 .027-031	FLAG DATA General	(5.), (6.) does not appear in table. EN decreases locally. See general remarks 2.b.).
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TRANS 1034

10091.002	DATA	EN ERR→EN-RSL.
	Record 159	E value doubled
.003	DATA (Unit)	MB/SR→MB
	DATA-ERR (Unit)	NO-DIM→MB (Probably).

TRANS 1035

10325.003	DATA	This representation of angular distribution sets (at 0.69, 1.325, 1.375, 1.425 MeV) is in conflict with monotonicity rule (Manual, 1.4 (2)). If sets of measurements are to be separated even if angle values differ (slightly) from one set to another, flags should be used.
.004	DATA	Same as above for sets at 2.1, 2.4, 2.6, 2.8, 3.0, 3.8 MeV.
.005	COMMENT	744 KeV value mentioned does not exist in table.
	774 probably meant.	
	DATA	heading E-EXC-MIN and E-EXC-MAX could be used here in ranges characterised by 774 KeV and 1490.5 KeV. E-EXC-ERR has no meaning in these ranges. Moreover, 2 sets are separated at 774 KeV in a way which conflicts with monotonicity rule.

TRANS 3013

30260.001	COMMON.	HLI relevant only to .002
30264.012,013 .020,021 .023-025 .027,029 .035,036 .043	HALF-LIFE	Isomer codes 'G' or 'M' missing
.041	ISO-QUANT (A) HALF-LIFE (A)	180→181 of HLI. 179→180 " "
.043	HALF-LIFE (A)	205→203 " " and ISO-QUANT (A)
30265.002-004 014,019	HALF LIFE	Isomer code 'G' superfluous if no isomeric state is known (checked on 'Nuklidkarte' KFK 3rd Ed. 1968)

TRANS 3014

30116.003	STANDARD	Code could be indicated
30150.004,007	ISO-QUANT	a) Modifier REL has no meaning for an isolated data point, as any value could be given in this case. b) Furthermore, the given number has an absolute meaning, as indicated by unit GAM/100N. Modifier FCT applies here.
.008		Same as 004,007 b).
30179.005	EN,E-LVL	Columns not in the order defined in EXFOR Manual (1.4(2)).
30263.002-014	E	Column should be before DATA (EXFOR Manual 1.4(2)).
30267.002	COMMENT (Rec8)	'SUBENTRY 2'→'SUBENTRY 3'
30273.002-004	DATA	It may be adequate for future programming to have independent variable columns corresponding to differentiations. DA/DE/DE would then imply the existence of headings ANG, E1, E2.
30277.003	FLAG	Column should be after DATA (EXFOR Manual 1.4(2)).
30280.005	FLAG	Same as above (30277.003)

TRANS 4014

40006.001,003	RESID -NUC	Code missing (See also 4.)
40006. All	DATA	+ EN-ERR → + EN-RSL
40013.002	NO DATA	DATA-MAX can be given. See COMMENT
.003-005	DATA	E-format numerical data not right-adjusted (See also 4.)
	MOMENTUM L	Missing D-WAVE specified except in 005 where it may have been omitted.
40065.005-007	DATA	E-LVL column missing.
40106.008	DATA	Value missing.
40147.007	DATA, -ERR (Unit)	MEV → MILLIEV.
.030	FLAG	NO-DIM Missing (See 4.)
.037	ISO-QUANT	ER-167 → ER-168
.038	"	ER-167 → ER-170 Guessed from context.
40161. All	EN-RSL	Mentioned in INC-SPECT. Could be included in COMMON of subworks.
40162.017	Record 24	Variable decreases locally.
.038-051	STATUS	(DEP) not necessary for STF.
.051	FLAG	Indicated in BIB, not in DATA.
40164.003	Record 60	EN-RES decreases locally.

TRANS 4015

40005.002	RESID-NUC	Code missing (See also 4.)
.003	STANDARD	HL1 = 9.7 MIN and value of STAND 2 is for <u>metastable</u> (see ref. given for standard)

TRANS 4015 (cont.)

		Code missing (See also 4.)
	RESID-NUC	HL1 mentioned does not refer to RESID-NUC If ISO-QUANT is for GND. Ground state HL is about 9.4 D. (See nucl. chart, also Table of Isotopes Lederer, Hollander, Perlman 6th Ed. 1967)
.006	STATUS	(DEP) would apply in this case.
40070.010	HISTORY	Missing for data changes
40071.004	Alter flags	Missing
.006-012	HISTORY	Missing for data changes
.013	"	Missing for new subwork
40072.001	HISTORY	Mention of ISO-QUANT change should be made.
.019	DATA	EEN-ERR → EN-RSL (See also 4.)
40099. All	DATA	EN-CM not explained.
.002,003	DATA	Would be better to split tables according to specification in COMMENT.
40148.002	ISO-QUANT	Could this be better defined as ratio ((94-PU-239, NU, , PR)/98-CF-252, SF/NU, , PR)? In this case units would be NO-DIM
40156.003-006	ANALYSIS	Missing, with explanation of deduction of NF from total cross-section and ETA.
.003	Record 71,168	EN decreases locally.
.005	" 82,202	" " "
40165. All	Remark (TRANS 4014)	Same references as 40162

4. List of formal errors.

Errors automatically detected by checking program CHECKT within individual records and not classified as "bookkeeping errors" are listed here. Also excluded from the list are rejections due to absence of certain codes in the X4 dictionaries as they stand now (TRANS 9020). These codes can be considered for next dictionary update, and are the following :

<u>Dictionary 6</u>	NYO-72-	(10046.)
	COO-3072-	(10188.)
	Reports of the last type are automatically rejected, although correct.	
	KFKI-73-	(30273)
<u>Dictionary 12</u>	PI2 Definition ?	(10121)
<u>Dictionary 14</u>	NG,DA,RS,D	(10188)
	INL,LEG,2L2/PAR	(10285)
	INL,DA/DE,PAR	(")
	GEM,DA/DE,PAR	(10350,353,396,400)
	NNT,,PAR	(30280)
	ABS/WID,S0	(40070)
<u>Dictionary 19</u>	P-V51	(10333.004)
	SB-BE	(40072.001)
		(40074.001)

TRANS 1023 FORMAL ERRORS

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N-SOURCE	(P-PB) PB(P,N)	1004600100010
DETECTOR	(PSCIN) PLASTIC SCINTILLATION FOR SELF INDICATION	1004600100014
	(BORSL) SODIUM IODIDE CRYSTALS VIEWING A BORON SLAB.	1004600100016
ENTRY	10145	1014500000001
	(N,D), AND (N,ALPHA) REACTIONS IN THE REGION OF Z=40	1014500100007
	14.4 3+6 0.3 3+6	1014500100028
HALF-LIFE	(HL,39-Y-90, NP,, MS)	1014500200004
SUBENT	10145011	1014501100001
SUBENT	10145012	1014501200001
ISO-QUANT	(44-RU-96, NNP,, MS) + (44-RU-96, ND,, MS)	1014502200003
ENTRY	10188	1018800000001
SUBENT	10188001	1018800100001
DETECTOR	(PSCIN) 77 SCINTILLATION AND ONE CERENKOV COUNTER USED.	1018800100017
N-SOURCE	(D,T) 400-KEV DEUTERON ON TI-T TARGET.	1031200100008

TRANS 1024 FORMAL ERRORS

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ISO-QUANT	2(90-TH-229, NF/WID)	1019800200004
N-SOURCE	(P-LI-7) LI-7 (P,N) SOURCE.	1027702600004
	(R,LA-5024-MS,7208)	1029100100005
ISO-QUANT	1(94-PU-238, EL/WID, RED,S)	1029100300003
	(R,LA-5042-MS,7209) TABULATED DATA	1029200100005
ISO-QUANT	1(98-CF-249, EL/WID, RED,S)	1029200300003

TRANS 1025 FORMAL ERRORS

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METHOD	(PNM) SPECTRA AND PRODUCTION CROSS SECTIONS OF DE-EXCI-	1002900100011
DETECTOR	(LSCIN) 12.5 CM DIA NE 213 LIQUID SCINTILLATOR VIEWED	1028300100016
STANDARD	(1-H-1, EL DA) DETECTOR EFFICIENCY DETERMINED RELATIVE	1028300100019
DETECTOR	(LSCIN) 12.5 CM DIA NE 213 LIQUID SCINTILLATOR VIEWED	1028500100016
STANDARD	(1-H-1, EL DA) DETECTOR EFFICIENCY DETERMINED RELATIVE	1028500100019
DETECTOR	(LSCIN) 12.5 CM DIA NE 213 LIQUID SCINTILLATOR VIEWED	1028700100016
STANDARD	(1-H-1, EL DA) DETECTOR EFFICIENCY DETERMINED RELATIVE	1028700100019
N-SOURCE	(REACT) INCIDENT NEUTRON FLUX FROM THE MIT REACTOR	1036000100008
INSTITUTE	(USALLL)	1037600100003

TRANS 1026 FORMAL ERRORS

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DETECTOR	(LSCIN) 12.5 CM DIA NE 213 LIQUID SCINTILLATOR VIEWED	1028600100016
STANDARD	(1-H-1, EL DA) DETECTOR EFFICIENCY DETERMINED RELATIVE	1028600100019
ISO-QUANT	((92-U-238, EL, LEG, 2L2) + (92-1-238, INL, LEG, 2L2/PAR))	1028600300003
ISO-QUANT	(1-H-2, EL, AMP)	1034300200003
STANDARD	(6-C-0, EL, AMP)	1034300200004
	(8-O-0, EL, AMP) RESULTS ARE RELATIVE TO THE SCATTERING	1034300200005
HALF-LIFE	(HL,72-HF-182-M2) DETERMINED FROM 18 GAMMA-RAY SPECTRA	1035400200005
EV	B B Y Y	1035400200012
FACILITY	(CYCLF) CROCKER NUCLEAR LABORATORY ISOCHRONOUS	1035500100009

TRANS 1027 FORMAL ERRORS

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ISO-QUANT	(0-0-0, TOT)	1037700300003
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TRANS 1028 FORMAL ERRORS

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REFERENCE (J,NP/A 163,592,71) 1007400100004
METHOD (CAPTG,TRANSM) CAPTURE AND TRANSMISSION MEASUREMENT. 1007400100012
DETECTOR (LSCIN) LIQUID SCINTILLATOR FOR CAPTURE MEASUREMENT. 1007400100013
PART-DET (BORSI) BO-70-NAI DETECTOR FOR TRANSMISSION. 1007400100014
ANALYSIS (AA) AREA ANALYSIS 1007400100017
          (SA) R-MATRIX SHAPE ANALYSIS 1007400100018
DETECTOR (LSCIN) 12.5 CM DIA NE 213 LIQUID SCINTILLATOR VIEWED 1011300100015
STANDARD (1-H-1, EL DA) DETECTOR EFFICIENCY DETERMINED RELATIVE 1011300100018
STANDARD (ABSOL) ABSOLUTE. 1013700100017
STATUS (740508C) 1013700400009
STATUS (740508C) 1013700500009
METHOD (L-R, MAGFR) DOUBLE SCATTERING FROM IDENTICAL SCATTERERS 1024800100012
DETECTOR (PSCIN) TWO PLASTIC SCINTILLATORS, 12.5CM DIA. X 15CM 1024800100017
GEOMETRY SCATTERS 27M APART, WITH 1.2M LONG SOLENOID ONE-QUARTER 1024800100019
NUC-QUANT (100-FM-257, SF/NU, , PAR) 1030000200003
DETECTOR (IONCH) IONIZATION CHAMBER FOR FISSION FRAGMENT 1033300300011
INSTITUTE (USALLL) 1034100100003
INSTITUTE (USANBS, USAHRV, USAAMW) 1037300100003
INSTITUTE (USALLL) 1039300100003
    
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TRANS 1029 FORMAL ERRORS

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=====
GEOMETRY THE ACTIVE REGION OF THE BORON SAMPLE WAS DEFINED IN 1008900100020
GEOMETRY NEUTRON BEAM WAS 15 MRAD WITH RESPECT TO PRIMARY PROTON 1018700100016
PART-DET (N/P) BOTH SCATTERED NEUTRONS AND RECOIL PROTONS WERE 1018700100040
ISO-QUANT (65-TB-159, POT) 1038300300003
N-SOURCE (REAR) NRU REACTOR 1038500300004
    
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TRANS 1030 FORMAL ERRORS

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METHOD (D,D) D(D,N)HE3 REACTION 1023500100012
          (CAPTG) CAPTURE GAMMAS MEASUREMENT 1025000100010
          (DIDET) DIRECT DETECTION OF FISSION TRACKS 1028100100010
          (CPAT) COUNTER RATIO WITH RESPECT TO A CF-249 STANDARD 1028100100011
INSTITUTE (USALLL) 1032700100003
REFERENCE (R, BRL-R-1652, 7306) 1033100100004
ISO-QUANT (4-BE-9, NP, , PAR, DN) 1038900200003
    
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TRANS 1031 FORMAL ERRORS

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=====
EV      B      R      1008500600010
          (R, LA-DC-72-1056, 72) REVISED DATA 1011700100005
          (R, LA-4763-MS, 71) 1018200100005
EV      BARNES      FEI-CENT 1018200200010
INSTITUTE (USEEGG) 1019500100003
METHOD (TRANSM) TRANSMISSION MEASUREMENTS MADE USING TIME-OF- 1020400100012
STANDARD (ABSOL) ABSOLUTE 1020400100017
          (W, LINDNER, 730273) TABULATED DATA. 1022100100005
    
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TRANS 1032 FORMAL ERRORS

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Q-VAL	EN	<u>Q-VAL-RSL</u>	DATA	+DATA-ERR	-DATA-ERR	1000700400013
Q-VAL	EN	<u>Q-VAL-RSL</u>	DATA	+DATA-ERR	-DATA-ERR	1000700900013
Q-VAL	EN	<u>Q-VAL-RSL</u>	DATA	+DATA-ERR	-DATA-ERR	1000701400013
EN-RSL	<u>Q-VAL-RSL</u>					1000800400012
.101934E	04.32578	E+01.969341E-01				1000800600591
ISO-QUANT	(83-BI-209, INL, LEG, <u>RS/PAR</u>)					1007000500003

TRANS 1033 FORMAL ERRORS

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TRANS 1034 FORMAL ERRORS

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	(R, LA-4648-MS, 7106)					1022300100005
ISO-QUANT	(91-PA-231, NF, DA, FCT) FF					1022300600003
METHOD	(4PI1A) 4 PI * CROSS SECTION AT 165 DEGR.					1022300600004

TRANS 1035 FORMAL ERRORS

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E-EXC	<u>E-EXC-ERR</u>	FN	DATA	DATA-ERR		1032500500012
END OF DATA						

TRANS 3013 FORMAL ERRORS

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(1961) 1438. THE CU SAMPLE WAS PLACED AT 90 DEG WITH 3008000100013

STANDARD (ABSOL) ABSOLUTE MEASUREMENTS 3008300100012

METHOD (DIDET) GAMMA SPECTRA ARE MEASURED BY THE TELESCOPIC 3008300100023

GEOMETRY TARGETS ARE BALLS OF 4-6CM DIAMETER PLACED AROUND THE 3008300100027

STATUS (PRIV) DATA AS TAKEN FROM A PRIVATE COMMUNICATION OF 3008300100065

REFERENCE (P, IFA-NE-47-1973, 73) DETAILED REPORT 3014000100009C

SAMPLE (POWDR) METAL POWDER (5G) OF SPECTROSCOPIC PURITY 3015700100011

ANALYSIS (STATM) THE ANALYSIS BASED ON STATISTICAL THEORY HAVE 3015800100036

STATUS (PUBL) DATA ARE TAKEN FROM PUBLICATIONS 3015800100038

SAMPLE (METAL) 4.0 MG/CM2 OF TE-122 EVAPORATED IN NITROGEN 3015800200012

SAMPLE (OXIDE) 5.4 MG/CM2 OF LA2-O3 DEPOSITED ON THICK CARBON 3015800400011

SAMPLE (OXIDE) 3.0 MG/CM2 OF EU2-O3 DEPOSITED ON THICK CARBON 3015800600006

SAMPLE (OXIDE) 5.2 MG/CM2 OF TB2-O3 DEPOSITED ON THICK CARBON 3015800800012

SAMPLE (OXIDE) 3.9 MG/CM2 OF DY2-O3 DEPOSITED ON THICK CARBON 3015801000015

SAMPLE (OXIDE) 4.4 MG/CM2 OF LY2-O3 DEPOSITED ON THICK CARBON 3015801200008

SAMPLE (OXIDE) 5.4 MG/CM2 OF DY2-O3 DEPOSITED ON THICK CARBON 3015801400013

SAMPLE (OXIDE) 4.2 MG/CM2 OF DY2-O3 DEPOSITED ON THICK CARBON 3015801600008

SAMPLE (OXIDE) 4.9 MG/CM2 OF DY2-O3 DEPOSITED ON THICK CARBON 3015801800016

SAMPLE (OXIDE) 3.1 MG/CM2 OF ER2-O3 DEPOSITED ON THICK 3015802000008

SAMPLE (OXIDE) 6.2 MG/CM2 OF ER2-O3 DEPOSITED ON THICK 3015802200009

SAMPLE (OXIDE) 8.8 MG/CM2 OF TM2-O3 DEPOSITED ON THICK 3015802400009

TRANS 3014 FORMAL ERRORS

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2" * 2" NAI (TL) SPECTROMETERS FOR GAMMA COUNTING. 3027400100014

END OF DATA

TRANS 4014 FORMAL ERRORS

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PART-DET	(B-) DECAY BETA-					4000600700028
RESID-NUC	GROUND STATE. HALF-LIFE OF BETA-DECAY GIVEN IN COMMON					4000600200018
ISO-QUANT	((52-TE-130,NG,,GND) DATA RECEIVED FROM AUTHORS					4000600300003
RESID-NUC	GROUND STATE. HALF-LIFE OF BETA DECAY GIVEN IN COMMON					4000600300019
<u>1.4E-4</u>	<u>0.7E-4</u>					4001300300009
<u>0.8E-4</u>	<u>0.5E-4</u>					4001300400009
<u>1.5E-4</u>	<u>0.6E-4</u>					4001300500009
STATUS	(PRIV) RECEIVED FROM AUTHOR 730703					4006500700039
ANG	DATA DATA-ERR MISC1 <u>MISC1-ERR</u> MISC2					4007500200015
<u>MISC2-ERR</u>						4007500200016
ANG	DATA DATA-ERR MISC1 <u>MISC1-ERR</u> MISC2					4007500300015
<u>MISC2-ERR</u>						4007500300016
ANG	DATA DATA-ERR MISC1 <u>MISC1-ERR</u> MISC2					4007500400015
<u>MISC2-ERR</u>						4007500400016
ISO-QUANT	(82-PR-208, EL, DA/POL)					4007500500003
ANG	DATA DATA-ERR MISC1 <u>MISC1-ERR</u>					4007500500012
EN	DATA DATA-ERR MISC <u>MISC-ERR</u>					4010600400013
MASS	DATA DATA-ERR MISC <u>MISC-ERR</u>					4010600500013
MISC	(MISC) KINETIC ENERGY OF FISSION FRAGMENT					4010600600004
MISC	(MISC) KINETIC ENERGY OF FISSION FRAGMENT					4010600600004
MASS	DATA DATA-ERR MISC <u>MISC-ERR</u>					4010600600013
MASS	DATA DATA-ERR MISC <u>MISC-ERR</u>					4010600700013
MASS	DATA DATA-ERR MISC <u>MISC-ERR</u>					4010600800013
MASS	DATA DATA-ERR MISC <u>MISC-ERR</u>					4010600900013
MASS	DATA DATA-ERR MISC <u>MISC-ERR</u>					4010601000013
MASS	DATA DATA-ERR MISC <u>MISC-ERR</u>					4010601100013
NO-DIM	PC/FISS PC/FISS MEV MEV					4010601100014
MASS	DATA DATA-ERR MISC <u>MISC-ERR</u>					4010601200013
MASS	DATA DATA-ERR MISC <u>MISC-ERR</u>					4010601300013
REFERENCE	(R,P3-3097,670) NUMERICAL DATA GIVEN					4014700100006
56.8	0.2 0.81 0.08					4014700300018
SAMPLE	(OXIDE) OXIDE SAMPLE OF WEIGHT 5.14 GRAMMES					4014700500004
	(COMI=) ISOTOPE COMPOSITION					4014700500005
SUBENT	40147012 739510					4014701200001
ISO-QUANT	(58-ER-167, EL/WID, RED, 2G, AV) 2G*AVERAGE REDUCED					4014701900003
EV	MEV MILLI-EV MILLI-EV					4014703000016
	(R,INDSWG-74,765) ABSTRACT AND DATA FOR FE,C AND TI					4016100700018
	(R,SANDS-505,198,6507) ONLY FOR AL					4016100700020
	(S,65ANTWERP,575,6507) ONLY FOR AL					4016100700021
ISO-QUANT	(13-AL-0,ING,,PAR) PARTIAL CROSS SECTION OF G-RAY YIELD					4016100200003
ISO-QUANT	(13-AL-0,ING,,PAR) PARTIAL CROSS-SECTION OF G-RAYS					4016100300003
ISO-QUANT	(13-AL-0,ING,,PAR) PARTIAL CROSS SECTION OF G-RAYS					4016100400003
ISO-QUANT	(13-AL-0,ING,,PAR) PARTIAL CROSS SECTION OF G-RAYS					4016100500003
ISO-QUANT	(13-AL-0,ING,,PAR) PARTIAL CROSS SECTION OF G-RAYS					4016100600003
ISO-QUANT	(13-AL-0,ING,,PAR) PARTIAL CROSS SECTION OF G-RAYS					4016100700003
ISO-QUANT	((13-AL-0,ING,,PAR) = (13-AL-0,INL,,PAR)) PARTIAL CROSS					4016100800003
ISO-QUANT	((13-AL-0,ING,,PAR) = (13-AL-0,INL,,PAR)) PARTIAL CROSS					4016100800003
ISO-QUANT	((13-AL-0,ING,,PAR) = (13-AL-0,INL,,PAR)) PARTIAL CROSS					4016100900003
ISO-QUANT	((13-AL-0,ING,,PAR) = (13-AL-0,INL,,PAR)) PARTIAL CROSS					4016100900003
ISO-QUANT	(13-AL-0,ING) INELASTIC GAMMA CROSS SECTION					4016101000003
ISO-QUANT	(83-BI-0,ING,,PAR) PARTIAL CROSS SECTION OF G-RAYS					4016101100003
ISO-QUANT	(83-BI-0,ING,,PAR) PARTIAL CROSS SECTION OF G-RAYS					4016101200003
ISO-QUANT	(83-BI-0,ING,,PAR) PARTIAL CROSS SECTION OF G-RAYS					4016101300003
ISO-QUANT	(83-BI-0,ING) INELASTIC GAMMA CROSS SECTION					4016101400003

TRANS 4014 FORMAL ERRORS (CONT.)

REFERENCE	(R, P3-3882, 6810)	NUMERICAL DATA GIVEN	
39.3	0.1	56.	17
EN-RES	EN-RES	DATA	DATA-ERR
207.7	0.4	75.	10.
239.2	0.6	95.	10.
DATA	+DATA-ERR	-DATA-ERR	FLAG
NO-DIM	NO-DIM	NO-DIM	NO-DIM
DATA	+DATA-ERR	-DATA-ERR	FLAG
ISO-QUANT	(91-PA-231, RI)		
STANDARD	(93-NP-237, RI)		
SAMPLE	(METAL)	ENRICHMENT ON SB-121	98.8 PER-CENT IN
ISO-QUANT	(51-SB-121, EL/WID, RED, 2G)		23*REDUCED NEUTRON WIDTH
803.5	3.3	20.	3.
LV	MILLY-EV	PER-CENT	NO-DIM

TRANS 4015 FORMAL ERRORS

STATUS	(PRIV) DATA RECEIVED FROM AUTHORS AND REVISED BY V.P.	4000500100056
RESID-NUC	GROUND STATE. HALF-LIFE OF BETA-DECAY GIVEN IN COMMON-	4000500200017
	(92-U-325, NF) FOR ABSOLUTE NORMALIZATION OF CROSS-	4000500300017
RESID-NUC	GROUND STATE. HALF-LIFE OF BETA DECAY GIVEN IN COMMON-	4000500300017
REFERENGL	(J, IZV, 30, (8), 1776, 7008) NUMERICAL DATA AND SOME SPECTRA	4005400100007
STATUS	(PUBL) NUMERICAL DATA FROM DUBNA REPORT, P3-4992	4007000100007
FACILITY	(REACP) JINR PULSED FAST REACTOR	4007000100012
	(TRNSM) TRANSMISSION METHOD WAS USED IN TOTAL	4007000100015
	(SIN) SELF-INDICATION METHOD WAS USED IN MEASUREMENTS	4007000100017
DETECTOR	(LSCIN) IN CASE OF TRANSMISSION MEASUREMENTS LIQUID	4007000100023
GEOMETRY	FLIGHT PATH WAS EQUAL 1010.M	4007000100030
SAMPLE	(METAL) SAMPLES WERE IN FORM OF METALLIC PLATE AND	4007000200004
	(OXIDE) OXIDE-PROTOXIDE ON ALUMINIUM FOIL, 250. CM	4007000200005
SAMPLE	(METAL) SAMPLES WERE IN FORM OF METALLIC PLATE AND	4007000300004
	(OXIDE) OXIDE -PROTOXIDE ON AL FOIL, 250 CM**2	4007000300005
SAMPLE	(METAL) SAMPLES WERE IN FORM OF METALLIC PLATE AND	4007000400004
	(OXIDE) OXIDE-PROTOXIDE ON AL FOIL, 250 CM**2	4007000400005
SAMPLE	(METAL) SAMPLES WERE IN FORM OF METALLIC PLATE AND	4007000500004
	(OXIDE) OXIDE-PROTOXIDE ON ALUMINIUM FOIL, 250 CM**2	4007000500005
SAMPLE	(METAL) SAMPLES WERE IN FORM OF 92-U-235 METALLIC	4007001500004
	(OXIDE) OXIDE-PROTOXIDE ON ALUMINIUM FOIL, 250. CM**2	4007001500006
SAMPLE	(OXIDE) OXIDE-PROTOXIDE SAMPLES OF 92-U-233 WITH	4007002500004
SAMPLE	(METAL) SAMPLES WERE IN FORM OF METALLIC PLATE AND	4007002600004
	(OXIDE) OXIDE-PROTOXIDE ON ALUMINIUM FOIL, 250 CM**2	4007002600005
SAMPLE	(METAL) METALLIC SAMPLE WITH ENRICHMENT FOR	4007002700004
STATUS	(PUBL) DATA FROM JINR-P3-5655, PAGE 19-23.	4007100100013
FACILITY	(REACP) FAST PULSED REACTOR	4007100100014
SAMPLE	(OXIDE) SAMARIUM OXIDE	4007100100017
DETECTOR	(LSCIN) MULTISECTIONAL LIQUID SCINTILLATION DETECTOR.	4007100100025
	(BY SM-348 CURVE)	4007100100047
STANDARD	(ABSOL) ABSOLUTE MEASUREMENTS	4007200100015
STATUS	(PUBL) NUMERICAL DATA FROM REPORT FIZ.-ENERG INSTITUTE,	4007200100016
SAMPLE	(GEOM=) SPHERICAL LAYERS WITH INTERNAL DIAMETER FROM	4007200100022
GEOMETRY	SPHERICAL GEOMETRY	4007200100027
METHOD	(TRNSS) SPHERICAL SHELL TRANSMISSION	4007200100028
ANALYSIS	(DB) ABSORPTION CROSS SECTION CALCULATION WAS CARRIED	4007200100032
IN	EN-ERR DATA DATA-ERR	4007201900010

TFANS 4015 FORMAL ERRORS (CONT.)

SAMPLE	(GEOM=) SPHERICAL LAYER	4007400100009
STANDARD	(ABSOL) ABSOLUTE MEASUREMENTS	4007400100010
STATUS	(PUBL) DATA FROM AT.ENERG., VOL.20, N.5, PAGE 432, 1966	4007400100011
GEOMETRY	SPHERICAL GEOMETRY	4007400100014
METHOD	(TRNSS) SPHERICAL SHELL TRANSMISSION	4007400100015
ANALYSIS	(DB) CALCULATION OF ABSORPTION CROSS SECTION WAS	4007400100024
	(R, INDC-79E)	4007600100013I
	(C, 65ANTVERP, ,575,6507)	4007600100014I
	(R, EANDC-50, 199)	4007600100015I
	(C, 66MOSCOW)	4007600100016I
FACILITY	(REAC) REACTOR	4008000100010
METHOD	(DIDET) DIRECT DETECTION OF ELASTICALLY SCATTERED	4008000100012
	(IN PERCENT)	4008000100018
DETECTOR	(IONCH) IONIZATION CHAMBER	4008000100032
ANALYSIS	(OPFM) OPTICAL MODEL USED FOR NORMALIZATION	4008000100034
STANDARD	(ABSOL) ABSOLUTE MEASUREMENTS	4008800100011
FACILITY	(ACCEL) LOW-VOLTAGE ACCELERATOR	4008800100013
GEOMETRY	RING GEOMETRY	4008800100017
DETECTOR	(PSCIN) PLASTIC SCINTILLATION DETECTOR	4008800100020
SAMPLE	(METAL) METALLIC RING WITH AVERAGE DIAMETER 30. CM AND	4008800200004
SAMPLE	(METAL) TOROID WITH AVERAGE DIAMETER 30. CM AND	4008800400004
SAMPLE	(METAL) TOROID WITH AVERAGE DIAMETER 30.CM AND DIAMETER	4008800500004
SAMPLE	(METAL) METALLIC RING WITH AVERAGE DIAMETER 30.CM AND	4008800700004
SAMPLE	(METAL) METALLIC RING WITH AVERAGE DIAMETER 30.CM AND	4008801000004
STATUS	(PUBL) DATA FROM PUBLICATION, SEE AE, 33, (5), 901, 7311	4014800100015
	(IONCH) MULTILAYER IONIZATION CHAMBER. REGISTRATION	4014800200008
	(IONCH) MULTILAYER IONIZATION CHAMBER. REGISTRATION	4014800300008
STATUS	(DEPEND) DEPENDENT DATA. SEE SUBENT 40148002	4014800300017
	(IONCH) DOUBLE IONIZATION CHAMBER	4014800400005
	(IONCH) DOUBLE IONIZATION CHAMBER	4014800500006
STATUS	(DEPEND) DEPENDENT DATA. SEE SUBENT 40148004	4014800500017
EN-NRM	EN-NRM-ERR STAND STAND-ERR	4014800500020
	(R, JINR-2313)	4015600100021
	(R, PB-3882, 6810)	4015600400023
REFERENCE	NUMERICAL DATA GIVEN	4016500100006
END OF DATA		

5.

TRANS TAB. BOOKKEEPING ERRORS - CARD CONTAINING X1, X2, RECORD IDENTIFICATION, 'M'
 =====
 IS FOLLOWED BY X2 CARDS AND DESCRIBES CORRECTION OF X1 RECORDS STARTING FROM IDENTIFIED RECORD. FOLLOWING CARDS CARRY X3, X4, X5; X3, X4 DEFINE 1ST AND LAST CHARACTER OF FIELD TO BE CORRECTED. IF X5 = 0, X5 = NO. OF SHIFT STEPS, IF X5 = 0, DEFINED FIELD IS REPLACED BY TEXT STARTING IN COL. 14.
 - CARD ENDING WITH RECORD IDENTIFICATION, ' '
 IS A REPLACEMENT RECORD.

TRANS 1023 BOOKKEEPING ERRORS - CORRECTION CARDS
 =====
 BIB 12 24 1018800100002

TRANS 1025 BOOKKEEPING ERRORS - CORRECTION CARDS
 =====
 TRANS 1025 740627 1000000000000

TRANS 1026 BOOKKEEPING ERRORS - CORRECTION CARDS
 =====
 1NDENTRY 52 1028699999999
 3 1035600600009M
 12 45 -11
 1NDTRANS 6 9999999999999

TRANS 1029 BOOKKEEPING ERRORS - CORRECTION CARDS
 =====
 DATA 9 1 1008900200010
 1NDDATA 6 1008900200017

TRANS 1033 BOOKKEEPING ERRORS - CORRECTION CARDS
 =====
 DATA 5 8 1012100500007
 1ND-ERR DATA 1DATA 2DATA-ERR 2 1012100500008
 1EV MILLI-EV MILLI-EV MILLI-EV MILLI-EV 1012100500009
 54 44 0 1012102500010M
 1ND OF DATA

TRANS TAPE BOOKKEEPING ERRORS - CARD CONTAINING X1, RECORD IDENTIFICATION, '*,
=====

IS FOLLOWED BY ONE CARD WHICH DESCRIBES CORRECTION OF RECORDS STARTING FROM
RECORD X1 TO ENDSUBENT RECORD. ALL RECORDS THUS DEFINED ARE GIVEN THE
SUBACCESSION NUMBER INDICATED BY X1.

TRANS 3013 BOOKKEEPING ERRORS - THIS IS TO CORRECT RECORD NO. 50
=====

3015800100001
END OF DATA

3015800100001*

TRANS TAPE BOOKKEEPING ERRORS - CARD CONTAINING X1, X2, RECORD IDENTIFICATION, 'M'

IS FOLLOWED BY X2 CARDS AND DESCRIBES CORRECTION OF RECORDS STARTING FROM IDENTIFIED RECORD TO RECORD X1. FOLLOWING CARDS CARRY X3, X4, X5; X3, X4 ARE FIRST AND LAST CHARACTER OF FIELD TO BE CORRECTED. X5 = NO. OF SHIFT STEPS, IF X5 = 0, DEFINED FIELD IS REPLACED BY TEXT STARTING IN COL. 14.

- CARD CONTAINING RECORD IDENTIFICATION, 'I', AND WHICH CAN BE FOLLOWED BY A CARD ENDING BY 'S' WITH SAME IDENTIFICATION NUMBER DEFINES ONE OR SEVERAL RECORDS TO BE INSERTED AFTER DEFINED RECORD.

- CARD ENDING WITH RECORD IDENTIFICATION, ' ' IS A REPLACEMENT RECORD.

TRANS 4014 BOOKKEEPING ERRORS - CORRECTION CARDS

=====			
NOCOMMON			4005200100024I
ENDSUBENT	24		4005200100024S
DATA	4	24	4014700600011
SUBENT	40147012	730510	4014701200001
BIB	3	6	4014703400002
COMMON	2	3	4016300300008

TRANS 4015 BOOKKEEPING ERRORS - CORRECTION CARDS

=====			
BIB	3	4	4007001000002
ENDDATA	3		4007200500010
BIB	13	34	4014900100002
4015600200076 1			4015600200019M
1 11 1			
4015600300053 2			4015600300019M
1 11 1			
24 24 -1			
4015600300183 1			4015600300054M
1 11 1			
4015600400113 1			4015600400021M
1 11 1			
4015600500211 1			4015600500021M
1 11 1			
4015600600035 1			4015600600017M
1 11 1			
END OF DATA			

