



BROOKHAVEN NATIONAL LABORATORY  
ASSOCIATED UNIVERSITIES, INC.

Upton, Long Island, New York 11973

National Nuclear Data Center  
Bldg. 197D

(516) 282-2901, 2902  
FTS 666

4C-1/178

DATE: July 2, 1986  
TO: Distribution  
FROM: V. McLane *ym*  
SUBJECT: EXFOR Corrections And Requested Data Sets

Enclosed are corrections and requested data for Mo, Tc, Ru, Pd, Cd, In, Sb, Te, I, Ba, La, Ce, Pr, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Tm, and Am.

*Charles L. Dunford*  
Charles L. Dunford

VM:a1

Distribution  
V. Manokhin  
J. J. Schmidt  
N. Tubbs  
NNDC (6)

*cc. Arcilla  
Cullen  
Baudexias •  
Bonlo  
Lammes •  
Lemuel •  
~~Schan~~  
Okamoto  
Oshomawe  
Schariat  
Schweser •  
Seits*

Completeness Check References for Area 3

Z	A	Q	LAB	EN	RNGE	REFERENCE	DATE	AUTHOR
				EV				
ZN	0	TOT	3	UMX	1.5+7	J RMF,18,115	6904	VELASQUEZ+
MO	0	TOT	3	CAI	3.0-3	2.2+0 J AKE,39,207	8100	SALAMA+
CD	0	NG	3	ROS	2.5-2	J KE,10,25	6701	ALBERT
IN	113	DIN	3	MOH	1.4+7	J NIM,227,249	8411	REGGOUG+
SB	0	SEL	3	CAI	5.0-2	4.0-1 J JNE,22,389	6806	EL-ELA+
SB	121	NP	3	MUA	1.5+7	J NP,28,560	6112	KHURANA+
SB	123	NP	3	MUA	1.5+7	J NP,28,560	6112	KHURANA+
BA	137	N2N	3	POO	1.4+7	J RRL,51,391	8205	CHINDHADE+
BA	137	N2N	3	RBZ	1.5+7	P INDC(SEC)-50	7601	HOLUB+
LA	139	NG	3	TRM	2.5+4	J NC/A,50,247	7903	ANAND+
LA	139	SIN	3	SUN	3.6+5	1.4+6 J NP/A,124,111	6902	MALAN+
CE	0	TOT	3	CAI	1.8-3	1.8+0 C 79BOLOGN,,95	7912	ADIB+
PR	141	TOT	3	CHF	1.4+7	J CHP,1,34	6310	HSU+
E	0	ABS	3	ROS	2.5-2	J KE,10,25	6701	ALBERT
EU	151	ABS	3	ROS	2.5-2	J KE,10,25	6701	ALBERT
TM	169	N2N	3	AEP	1.2+7	1.8+7 J NSE,90,304	8507	LU+
TM	169	N3N	3	AEP	1.2+7	1.8+7 J NSE,90,304	8507	LU+
TM	169	TOT	3	CAI	1.8-3	1.0+0 J AKE,33,212	7900	ADIB+

+TRANS	Ø	86Ø6Ø9	Ø	Ø
ENTRY	31248	81Ø6Ø9	Ø	1
SUBENT	31248ØØ1	81Ø6Ø9	Ø	1
BIB	11	23	Ø	1
TITLE	THERMAL NEUTRON ACTIVATION CROSS-SECTION FOR ISOMER PRODUCTION (S.K.MANGAL, P.S.GILL) (3INDMUA) (62) (J,NP,36.542.62Ø8) (REAC)TROMBAY SWIMMING POOL REACTOR. (THCOL) THERMAL COLUMN FLUX = 1ØE+7 N/CM-SQ/SEC.SOME SAMPLE WERE IRRADIATED NEAR THE CORE IN A FLUX = 1ØE+11 N/CM-SQ/SEC. (ACTIV)			
AUTHOR				
INSTITUTE				
EXP-VEAR				
REFERENCE				
FACILITY				
INC-SOURCE				
METHOD				
ERR-ANALYS	ACTIVATION OF SAMPLES WAS PERFORMED IN A THERMAL REACTOR SPECTRUM. THE FLUX WAS CALIBRATED SIMULTANEOUSLY WITH THE HELP OF STANDARD REACTION. MOST OF THE SAMPLE ACTIVITY WAS FOLLOWED FOR 3 TO 4 HALF-LIVES AFTER IRRADIATION.			
STATUS	NO FURTHER INFORMATION.			
HISTORY	DATA TAKEN FROM J. NUCL. PHYS.36(1962)542. (771115T) CONVERTED FROM EXFOR 7Ø248 (78Ø531A) ISO-QUANT IN SAN .ØØ6 CORRECTED, REF.CODING CORR., STANDARD CS IN SAN.ØØ1 CODED, ISO-QUANT31248 STANDARD AND HL IN SAN.Ø13 CORRECTED. OS (79Ø3Ø9A) ND.-RECOMPILED FROM REF. NEW SUBENT .Ø15 -- 23 Ø 3			
ENDBIB				
COMMON				
EN -				
EV				
2.53ØØE-Ø2				
ENDCOMMON				
ENDSUBENT				
SUBENT	3Ø	Ø	Ø	Ø
BIB	31248ØØ2	81Ø6Ø9	Ø	Ø
REACTION	5	7	Ø	Ø
MONITOR	(3Ø-ZN-68(N,G)3Ø-ZN-69-M,,SIG) (79-AU-197(N,G)79-AU-198,,SIG) = 98+-1 B.VALUE GIVEN IN31248 AECU-2Ø4Ø(1955).			
DECAY-DATA	(3Ø-ZN-69-M,13.8HR.,DG)			
DETECTOR	(NAICR) WELL-TYPE SODIUM IODIDE (TL ACTIVATED) CRYSTAL			
HISTORY	(8ØØ116U) ND MINOR CHANGES IN BIB. AFTER NNDC MEMO OF 79/12/17. 7 Ø Ø 1 1			
ENDBIB				
NOCOMMON				
DATA	Ø	Ø	Ø	Ø
DATA	4	1	Ø	Ø
MB	DATA-ERR MONIT MONIT-ERR PER-CENT B			
8.3ØØØE+Ø1	1.5ØØØE+Ø1	9.8ØØØE+Ø1	1.ØØØØE+ØØ	Ø
ENDDATA	3	Ø	Ø	Ø
ENDSUBENT	15	Ø	Ø	Ø
SUBENT	31248ØØ3	81Ø6Ø9	Ø	Ø
BIB	5	7	Ø	Ø
REACTION	(3Ø-ZN-68(N,G)3Ø-ZN-69,,SIG) (25-MN-55(N,G)25-MN-56,,SIG) = 13.4+-Ø.3 B.VALUE GIVEN IN BNL-325(1955).			
MONITOR	(3Ø-ZN-69-M,51.MIN,B-) (GEMUC) END WINDOW BETA COUNTER (8ØØ116U) ND MINOR CHANGES IN BIB. AFTER NNDC MEMO OF 79/12/17. 7 Ø Ø 1 1			
DECAY-DATA				
DETECTOR				
HISTORY				
ENDBIB				
NOCOMMON				
DATA	Ø	Ø	Ø	Ø
DATA	2	1	Ø	Ø
DATA	DATA-ERR			

*W. J. ...*

MB	PER-CENT		3	14
1.1100E+03	1.5000E+01		3	15
ENDDATA	3		3	16
ENDSUBENT	15		399999	
SUBENT	31248004	810609	4	1
BIB	5		2	2
REACTION	(30-ZN-70(N,G)30-ZN-71-M,,SIG)		4	3
MONITOR	(79-AU-197(N,G)79-AU-198,,SIG) = 98+-1 B.VALUE GIVEN		4	4
	AECU-2040(1955).		4	5
DECAY-DATA	(30-ZN-71-M,3.HR,DG)		4	6
DETECTOR	(NAICR) WELL-TYPE SODIUM IODIDE(TL ACTIVATED) CRYSTAL		4	7
HISTORY	(800116U) ND MINOR CHANGES IN BIB. AFTER NNDC MEMO OF		4	8
	79/12/17.		4	9
ENDBIB	7		10	
NOCOMMON	0		11	
DATA	2		12	
DATA		1	13	
DATA	DATA-ERR		14	
DATA	PER-CENT		15	
MB	9.0000E+00	2.0000E+01	16	
ENDDATA	3		499999	
ENDSUBENT	15		5	1
SUBENT	31248005	810609	5	2
BIB	5		5	3
REACTION	(30-ZN-70(N,G)30-ZN-71-G,,SIG)		5	4
MONITOR	(25-MN-55(N,G)25-MN-56,,SIG) = 13.4+-0.3 B. VALUE GIVEN		5	5
	IN BNL(1955).		5	6
DECAY-DATA	(30-ZN-71-M,3.HR,B-)		5	7
DETECTOR	(GEMUC) END WINDOW BETA COUNTER		5	8
HISTORY	(800116U) ND MINOR CHANGES IN BIB. AFTER NNDC MEMO OF		5	9
	79/12/17.		5	10
ENDBIB	7		11	
NOCOMMON	0		12	
DATA	2		13	
DATA		1	14	
DATA	DATA-ERR		15	
DATA	PER-CENT		16	
MB	1.1100E+02	2.0000E+01	599999	
ENDDATA	3		6	1
ENDSUBENT	15		6	2
SUBENT	31248006	810609	6	3
BIB	5		6	4
REACTION	(48-CD-108(N,G)48-CD-109,,SIG)		6	5
MONITOR	(79-AU-197(N,G)79-AU-198,,SIG) = 98+-1 B.VALUE GIVEN		6	6
	AECU-2040(1955).		6	7
DECAY-DATA	(48-CD-109,1.3YR,DG)		6	8
DETECTOR	(NAICR) WELL-TYPE SODIUM IODIDE(TL ACTIVATED) CRYSTAL		6	9
HISTORY	(800116U) ND MINOR CHANGES IN BIB. AFTER NNDC MEMO OF		6	10
	79/12/17.		6	11
ENDBIB	7		12	
NOCOMMON	0		13	
DATA	2		14	
DATA		1	15	
DATA	DATA-ERR		16	
DATA	PER-CENT		699999	
MB	1.4100E+03	2.5000E+01	7	1
ENDDATA	3		7	2
ENDSUBENT	15		7	3
SUBENT	31248007	810609	7	4
BIB	5		7	5
REACTION	(48-CD-110(N,G)48-CD-111-M,,SIG)		7	6
MONITOR	(79-AU-197(N,G)79-AU-198,,SIG) = 98+-1 B.VALUE GIVEN		7	7
	AECU-2040(1955).		7	8
DECAY-DATA	(48-CD-111-M,49.MIN,DG.396.)		7	9
DETECTOR	(NAICR) WELL-TYPE SODIUM IODIDE(TL ACTIVATED) CRYSTAL		7	10
HISTORY	(800116U) ND MINOR CHANGES IN BIB. AFTER NNDC MEMO OF		7	11
	79/12/17.		7	12

ENDBIB	7	0	31248	7	10
NOCOMMON	0	0	31248	7	11
DATA	2	1	31248	7	12
DATA			31248	7	13
DATA-ERR			31248	7	14
PER-CENT			31248	7	15
MB			31248	7	16
1.3200E+02	3	0	31248	7	799999
ENDDATA	15	0	31248	8	1
ENDSUBENT	3	0	31248	8	2
SUBENT	15	790326	31248	8	3
BIB	6	11	31248	8	4
REACTION			31248	8	5
MONITOR			31248	8	6
COMMENT			31248	8	7
			31248	8	8
			31248	8	9
			31248	8	10
			31248	8	11
			31248	8	12
			31248	8	13
			31248	8	14
			31248	8	15
			31248	8	16
			31248	8	17
			31248	8	18
			31248	8	19
			31248	8	20
			31248	8	899999
			31248	9	1
			31248	9	2
			31248	9	3
			31248	9	4
			31248	9	5
			31248	9	6
			31248	9	7
			31248	9	8
			31248	9	9
			31248	9	10
			31248	9	11
			31248	9	12
			31248	9	13
			31248	9	14
			31248	9	15
			31248	9	16
			31248	9	999999
			31248	10	1
			31248	10	2
			31248	10	3
			31248	10	4
			31248	10	5
			31248	10	6
			31248	10	7
			31248	10	8
			31248	10	9
			31248	10	10
			31248	10	11
			31248	10	12
			31248	10	13
			31248	10	14
			31248	10	15
			31248	10	16
			31248	10	999999
			31248	11	1

(48-CD-116(N,G)48-CD-117,;SIG)  
(25-MN-55(N,G)25-MN-56,;SIG) = 13.4+-0.3 B.VALUE GIVEN  
IN BNL-325(1955).  
=== COMPILER'S NOTE ===  
THE AUTHORS GIVE THE VALUE OF 50MIN AS THE HALF-LIFE  
FOR CD-117 (TABLE 1). HOWEVER HALF-LIFES FOR CD-117M  
AND 117G ARE 3.4HR AND 2.4HR, RESPECTIVELY. ===  
(GEMUC) END WINDOW BETA COUNTER  
(B-) ELECTRONS  
(1.) AUTHOR INDICATES THAT THE CROSS SECTION VALUE IS  
SMALLER THAN 8.MB

ENDBIB 11 0  
NOCOMMON 0 0  
DATA 2 1  
DATA  
DATA-ERR  
PER-CENT  
MB  
1.0340E+03 3 0  
ENDDATA 3 0  
ENDSUBENT 15 0  
SUBENT 31248010 810609 7  
BIB 5  
REACTION (52-TE-126(N,G)52-TE-127-G,;SIG)  
MONITOR (25-MN-55(N,G)25-MN-56,;SIG) = 13.4+-0.3 B. VALUE GIVEN  
IN BNL-325(1955).  
DECAY-DATA (52-TE-127-G,9.3HR,B-)  
DETECTOR (GEMUC) END WINDOW BETA COUNTER  
HISTORY (800116U) ND MINOR CHANGES IN BIB. AFTER NNDC MEMO OF  
79/12/17.

ENDBIB 7 0  
NOCOMMON 0 0  
DATA 2 1  
DATA  
DATA-ERR  
PER-CENT  
MB  
1.0340E+03 3 0  
ENDDATA 3 0  
ENDSUBENT 15 0  
SUBENT 31248010 810609 7  
BIB 5  
REACTION (52-TE-128(N,G)52-TE-129-G,;SIG)  
MONITOR (25-MN-55(N,G)25-MN-56,;SIG) = 13.4+-0.3 B.VALUE GIVEN  
IN BNL-325(1955).  
DECAY-DATA (52-TE-129-G,67.MIN,B-)  
DETECTOR (GEMUC) END WINDOW BETA COUNTER  
HISTORY (800116U) ND MINOR CHANGES IN BIB. AFTER NNDC MEMO OF  
79/12/17.

ENDBIB 7 0  
NOCOMMON 0 0  
DATA 2 1  
DATA  
DATA-ERR  
PER-CENT  
MB  
1.7800E+02 3 0  
ENDDATA 3 0  
ENDSUBENT 15 0  
SUBENT 31248011 810609

BIB	5	7	2	31248	11
REACTION	(52-TE-130(N,G)52-TE-131-G,,SIG)			31248	11
MONITOR	(25-MN-55(N,G)25-MN-56,,SIG) = 13.4+-0.3 B.VALUE GIVEN			31248	11
	IN BNL-325(1955).			31248	11
DECAY-DATA	(52-TE-131-G,25.MIN,B-)			31248	11
DETECTOR	(GEMUC) END WINDOW BETA COUNTER			31248	11
HISTORY	(800116U) ND MINOR CHANGES IN BIB. AFTER NNDC MEMO OF			31248	11
	79/12/17.			31248	11
ENDBIB		0		31248	11
NOCOMMON		0		31248	11
DATA		1		31248	11
DATA	DATA-ERR			31248	11
MB	PER-CENT			31248	11
	1.7800E+02 1.5000E+01	0		31248	11
ENDDATA		0		31248	11
ENDSUBENT	15	0		31248	11
SUBENT	31248012	810609		31248	11
BIB		7		31248	12
REACTION	(66-DY-164(N,G)66-DY-165-G,,SIG)			31248	12
MONITOR	(25-MN-55(N,G)25-MN-56,,SIG) = 13.4+-0.3 B.VALUE GIVEN			31248	12
	IN BNL-325(1955).			31248	12
DECAY-DATA	(66-DY-165-G,2.35HR,B-)			31248	12
DETECTOR	(GEMUC) END WINDOW BETA COUNTER			31248	12
HISTORY	(800116U) ND MINOR CHANGES IN BIB. AFTER NNDC MEMO OF			31248	12
	79/12/17.			31248	12
ENDBIB		0		31248	12
NOCOMMON		0		31248	12
DATA		1		31248	12
DATA	DATA-ERR			31248	12
MB	PER-CENT			31248	12
	9.5100E+02 2.5000E+01	0		31248	12
ENDDATA		0		31248	12
ENDSUBENT	15	0		31248	12
SUBENT	31248013	810609		31248	12
BIB		7		31248	13
REACTION	(78-PT-196(N,G)78-PT-197-M,,SIG)			31248	13
MONITOR	(79-AU-197(N,G)79-AU-198,,SIG) = 98+-1 B.VALUE GIVEN			31248	13
	AECU-2040(1955)			31248	13
DECAY-DATA	(78-PT-197-M,80.MIN,DG)			31248	13
DETECTOR	(NAICR) WELL-TYPE SODIUM IODIDE (TL ACTIVATED) CRYSTAL			31248	13
HISTORY	(800116U) ND MINOR CHANGES IN BIB. AFTER NNDC MEMO OF			31248	13
	79/12/17.			31248	13
ENDBIB		0		31248	13
NOCOMMON		0		31248	13
DATA		1		31248	13
DATA	DATA-ERR			31248	13
MB	PER-CENT			31248	13
	6.9000E+01 2.0000E+01	0		31248	13
ENDDATA		0		31248	13
ENDSUBENT	15	0		31248	13
SUBENT	31248014	810609		31248	13
BIB		7		31248	14
REACTION	(76-OS-189(N,G)76-OS-190-M,,SIG)			31248	14
MONITOR	(79-AU-197(N,G)79-AU-198,,SIG) = 98+-1 B.VALUE GIVEN			31248	14
	AECU-2040(1955)			31248	14
DECAY-DATA	(76-OS-190-M,10.MIN,DG)			31248	14
DETECTOR	(NAICR) WELL-TYPE SODIUM IODIDE (TL ACTIVATED) CRYSTAL			31248	14
HISTORY	(800116U) ND MINOR CHANGES IN BIB. AFTER NNDC MEMO OF			31248	14
	79/12/17.			31248	14
ENDBIB		0		31248	14
NOCOMMON		0		31248	14
DATA		1		31248	14
DATA	DATA-ERR			31248	14
MB	PER-CENT			31248	14

```

8.0000E+00 2.5000E+01
ENDDATA 3
ENDSUBENT 15
SUBENT 31248015 791226
BIB 4
REACTION (74-W-184(N,G)74-W-185-M,,SIG)
MONITOR (79-AU-197(N,G)79-AU-198,,SIG) = 98+-1 B.VALUE GIVEN IN
AECU-2040(1955)
DECAY-DATA (74-W-185-M,1.55MIN,DG)
DETECTOR (NAICR) WELL-TYPE SODIUM IODIDE(TL ACTIVATED) CRYSTAL
ENDBIB 0
NOCOMMON 0
DATA 2
DATA DATA-ERR
MB PER-CENT
2.2000E+01 2.0000E+01
ENDDATA 3
ENDSUBENT 13
ENDENTRY 16
ENDTRANS 1
31248 14 15
31248 14 16
31248 1499999
31248 15 1
31248 15 2
31248 15 3
31248 15 4
31248 15 5
31248 15 6
31248 15 7
31248 15 8
31248 15 9
31248 15 10
31248 15 11
31248 15 12
31248 15 13
31248 15 14
31248 1599999
31248999999999
Z99999999999999

```

TRANS	860514	0	0
ENTRY	30336	0	0
SUBENT	850314	1	1
BIB	840530	1	1
TITLE	17 45	1	1
AUTHOR	MEASURED (N,P) REACTION CROSS-SECTIONS AND THEIR	30336	0
INSTITUTE	PREDICTED VALUES AT 14.8 MEV	30336	1
EXP-YEAR	(R.PRASAD, D.C.SARKAR)	30336	1
REFERENCE	(3INDMUA)	30336	1
	(69)	30336	1
	(J,NC/A,3,(3),467,7106) DETAILED TABLE GIVEN.	30336	1
	45 NUCLIDES, 8 OF THEM REPUBLISHED FROM NUCL.PHYS.	30336	1
	85,476. (FOR THESE SEE ENTRY 30007)	30336	1
SAMPLE	(C,69ROORKEE,2,112,6912) SHORTER RESULTS IDENTICAL	30336	10
MONITOR	(J,NP,85,476,6609) RESULTS FOR 8 NUCLIDES	30336	11
FACILITY	SPECTROSCOPICALLY PURE SUBSTANCES OF CHEMICAL PURITY	30336	12
INC-SOURCE	BETTER THAN 99.9 PER-CENT USED	30336	13
METHOD	(26-FE-56(N,P)25-MN-56,,SIG)	30336	14
PART-DET	WEIGHTED AVERAGE OF VARIOUS MEASUREMENTS	30336	15
DETECTOR	(CCW) COCKCROFT-WALTON ACCELERATOR	30336	16
	(D-T) DEUTERON-TRITIUM	30336	17
	(ACTIV) ACTIVATION	30336	18
	(B-) DECAY BETA- OR	30336	19
	(DG) DECAY GAMMAS	30336	20
	END-WINDOW COUNTER FOR DETECTION OF BETAS	30336	21
	(NAICR) 3.8CM*3.8CM NAI(TL) CRYSTAL FOR DETECTION OF	30336	22
	GAMMAS	30336	23
CORRECTION	THE FOLLOWING CORRECTIONS WERE CONSIDERED=	30336	24
	-INFLUENCE OF LOW ENERGY NEUTRONS (NEGLIGIBLE)	30336	25
	-VARIATION OF NEUTRON FLUX DURING IRRADIATION. DATA OF	30336	26
	ACCELERATOR RUNS WITH VARIATIONS GREATER THAN	30336	27
	2 PER-CENT WERE REJECTED	30336	28
	-COMPETING REACTIONS FROM OTHER NUCLIDES (NEGLECTED)	30336	29
ERR-ANALYS	MAINLY STATISTICAL ERRORS.	30336	30
	TAKEN INTO CONSIDERATION WERE ALSO	30336	31
	-ERRORS DUE TO NONREPRODUCIBILITY OF IRRADIATION AND	30336	32
	COUNTING GEOMETRIES (LESS THAN 1 PER-CENT)	30336	33
	-ERRORS OF SAMPLE WEIGHTS (NEGLIGIBLE).	30336	34
COMMENT	COMPILER'S NOTE= MISPRINTS FOUND IN NUOVO CIM.A3,467=	30336	35
	TABLE 1,COL.2(RESID.NUCL.),'CU-60-M' SHOULD READ	30336	36
	'CO-60-M' (SAME ERROR ALSO IN 69ROORKEE,2,112)	30336	37
	'Y-99' SHOULD READ 'Y-92.'	30336	38
	COL.1(TARGET NUCL.),'PB-105' SHOULD READ 'PD-105'	30336	39
	CROSS-REFERENCE= RESULTS FOR 8 NUCLIDES FROM	30336	40
	NUCL.PHYS.85,476,1966 (REPUBLISHED IN NUOVO CIM.A3,	30336	41
	467, PARTLY WITH MINOR NUMERICAL CHANGES) ARE GIVEN	30336	42
	IN EXFOR ENTRY 30007.	30336	43
	DATA TAKEN FROM NUOVO CIM.A3,3,467,1971, TABLE 1.	30336	44
STATUS	(760525C) OS.	30336	45
HISTORY	(810122A) OS.- RATIO CS/STANDARD ADDED TO SUBENTRY 020.	30336	46
ENDBIB	45	30336	47
COMMON	3	30336	48
EN	EN-RSL MONIT	30336	49
MEV	MEV MB	30336	50
	1.4800E+01 5.0000E-01 1.2600E+02	30336	51
ENDCOMMON	3	30336	52
ENDSUBENT	52	30336	53
SUBENT	30335029	30336	19999
BIB	2 840530	30336	29
REACTION	(46-PD-105(N,P)45-RH-105-M,,SIG)	30336	29
HALF-LIFE	(HL,45-RH-105-M1) 42.0 SEC	30336	29
ENDBIB	0	30336	29
NOCOMMON	0	30336	29
DATA	3	30336	29
DATA	HL	30336	29

1970-11-18  
 17 105 11A 2



MB	2.3000E+01	8.0000E+00	4.2000E+01	30336	29	9
ENDDATA				30336	29	10
ENDSUBENT				30336	29	11
SUBENT		30336030	840530	30336	30	1
BIB				30336	30	2
REACTION	(46-PD-105(N,P)45-RH-105-G,,SIG)			30336	30	3
HALF-LIFE	(HL,45-RH-105-G) 36.5 HR			30336	30	4
ENDBIB				30336	30	5
NOCOMMON				30336	30	6
DATA				30336	30	7
DATA	DATA-ERR	HL		30336	30	8
MB		HR		30336	30	9
5.0000E+01	6.0000E+00	3.6500E+01		30336	30	10
ENDDATA				30336	30	11
ENDSUBENT				30336	30	1
SUBENT		30336031	840530	30336	30	2
BIB				30336	31	1
REACTION	(46-PD-106(N,P)45-RH-106,,SIG)			30336	31	2
HALF-LIFE	(HL,45-RH-106-G) 2.2 HR			30336	31	3
ENDBIB				30336	31	4
NOCOMMON				30336	31	5
DATA				30336	31	6
DATA	DATA-ERR	HL		30336	31	7
MB		HR		30336	31	8
1.4000E+01	5.0000E+00	2.2000E+00		30336	31	9
ENDDATA				30336	31	10
ENDSUBENT				30336	31	11
SUBENT		30336032	840530	30336	31	1
BIB				30336	32	2
REACTION	(46-PD-108(N,P)45-RH-108,,SIG)			30336	32	3
HALF-LIFE	(HL,45-RH-108-G) 18.0 SEC			30336	32	4
ENDBIB				30336	32	5
NOCOMMON				30336	32	6
DATA				30336	32	7
DATA	DATA-ERR	HL		30336	32	8
MB		SEC		30336	32	9
9.0000E+00	2.0000E+00	1.8000E+01		30336	32	10
ENDDATA				30336	32	11
ENDSUBENT				30336	32	1
ENTRY		10	850121	30336	32	1
SUBENT		5	850121	30336	32	1
BIB		14	35	30336	32	1
TITLE				30336	32	1
AUTHOR				30336	32	1
INSTITUTE				30336	32	1
REFERENCE	-RESONANCE NEUTRON CAPTURE IN PD ISOTOPES.-			30336	32	1
	(A.R.DEL.MUSGROVE,B.J.ALLEN,J.W.BOLDEMAN,R.L.MACKLIN)			30336	32	1
	(SAULAU)			30336	32	1
	(IUSAORL) LAST AUTHOR'S ADDRESS.			30336	32	1
	(W,MUSGROVE,790402) 'REVISED VALUES'			30336	32	1
	(C.78HARWELL,,449,7809)			30336	32	1
SAMPLE	ENRICHED SAMPLE			30336	32	1
MONITOR	(3-LI-6(N,T)2-HE-4,,SIG)			30336	32	1
FACILITY	(LINAC,IUSAORL)			30336	32	1
INC-SOURCE	(TOF) TIME OF FLIGHT, PATH = 40M.			30336	32	1
METHOD	(SCIN)			30336	32	1
DETECTOR	A PAIR OF NON-HYDROGENOUS FLUOROCARBON LIQUID			30336	32	1
	SCINTILLATORS, OPERATING AS TOTAL-ENERGY DETECTOR.			30336	32	1
	.NEUTRON FLUX WAS MONITORED BY A THIN LI-6 GLASS			30336	32	1
	SCINTILLATOR OPERATING IN THE TRANSMISSION MODE.			30336	32	1
PART-DET	(G)			30336	32	1
ERR-ANALYS	NO FURTHER INFORMATION.			30336	32	1
STATUS	DATA TAKEN FROM THE TABLES OF REVISED VALUES SENT FROM			30336	32	1
	A.R.MUSGROVE, 79/04/02.			30336	32	1

Double check data coded in 79/04/02

=== NOTE FROM THE AUTHOR,79/04/02.  
 THE VALUES APPEARED IN TABLE IV,VIII OF 1978 HARWELL  
 CONF.ON NEUTRON PHYSICS AND NUCL.DATA, ARE TO BE  
 SUPERSEDED BY THE REVISED ONES. THE PROGRAM USED TO  
 UNFOLD THE ISOTOPIC IMPURITIES FROM THE MEASURED PD  
 CROSS-SECTIONS HAD CONTAINED AN ERROR. ===  
 === COMPILER'S NOTE,79/05/31.  
 THE RESONANCE PARAMETERS HAS BEEN REQUESTED. ===  
 === LETT.FROM B.ALLEN,79/07/24.  
 THE RESONANCE PARAMETERS HAVE BEEN ANALYSED SEPARATELY  
 BY R.L.MACKLIN.(SEE,NUCL.SCI.AND ENGN'G.71(1979)182.=  
 (APRVD) APPROVED BY B.ALLEN WITH ABOVE MENTIONED NOTE,  
 79/07/24.

(790531C) KO.  
 (790906U) KO.- 'APRVD' AND NOTE ADDED.-  
 35  
 0  
 0  
 0  
 850121  
 1  
 1  
 1  
 0  
 0  
 0  
 4  
 15  
 15  
 MB  
 MB  
 DATA  
 DATA  
 DATA-ERR  
 DATA-ERR  
 DATA-ERR

HISTORY  
 ENDBIB  
 NOCOMMON  
 ENDSUBENT  
 SUBENT

BIB

REACTION

ENDBIB

NOCOMMON

EN-MIN

EN-MAX

KEY

3.0000E+00 4.0000E+00 7.4500E+02 8.0000E+01  
 4.0000E+00 5.0000E+00 1.3150E+03 1.5000E+02  
 5.0000E+00 6.0000E+00 8.2500E+02 9.0000E+01  
 6.0000E+00 8.0000E+00 9.6000E+02 1.0000E+02  
 8.0000E+00 1.0000E+01 9.8000E+02 1.0000E+02  
 1.0000E+01 1.5000E+01 7.1500E+02 7.5000E+01  
 1.5000E+01 2.0000E+01 6.0500E+02 6.5000E+01  
 2.0000E+01 3.0000E+01 5.0000E+02 5.0000E+01  
 3.0000E+01 4.0000E+01 4.1500E+02 4.5000E+01  
 4.0000E+01 5.0000E+01 3.4500E+02 3.5000E+01  
 5.0000E+01 6.0000E+01 3.1500E+02 3.5000E+01  
 6.0000E+01 8.0000E+01 2.6000E+02 3.0000E+01  
 8.0000E+01 1.0000E+02 2.2000E+02 3.0000E+01  
 1.0000E+02 1.5000E+02 1.9500E+02 2.5000E+01  
 1.5000E+02 2.0000E+02 1.7500E+02 2.5000E+01  
 ENDDATA 17 0  
 ENDSUBENT 23 0  
 SUBENT 30489003 850121 2

REACTION (46-PD-104(N,G)46-PD-105,.,SIG,.,AV)

ENDBIB MAXWELLIAN CAPTURE CROSS-SECTION AT 'KT' = 30 KEV.

NOCOMMON

DATA

EN-DUMMY EN-MAX DATA DATA-ERR

KEY MB DATA-ERR

4.5000E+01 4.2500E+02 5.0000E+01

ENDDATA 3 0

ENDSUBENT 10 0

SUBENT 30489004 850121 1

BIB

REACTION (46-PD-105(N,G)46-PD-106,.,SIG,.,AV)

ENDBIB

NOCOMMON

EN-MIN EN-MAX DATA DATA-ERR  
 KEY MB DATA-ERR  
 3.0000E+00 4.0000E+00 2.4500E+03 2.5000E+02

30489 1 23  
 30489 1 24  
 30489 1 25  
 30489 1 26  
 30489 1 27  
 30489 1 28  
 30489 1 29  
 30489 1 30  
 30489 1 31  
 30489 1 32  
 30489 1 33  
 30489 1 34  
 30489 1 35  
 30489 1 36  
 30489 1 37  
 30489 1 38  
 30489 1 39  
 30489 199999  
 30489 2 1  
 30489 2 2  
 30489 2 3  
 30489 2 4  
 30489 2 5  
 30489 2 6  
 30489 2 7  
 30489 2 8  
 30489 2 9  
 30489 2 10  
 30489 2 11  
 30489 2 12  
 30489 2 13  
 30489 2 14  
 30489 2 15  
 30489 2 16  
 30489 2 17  
 30489 2 18  
 30489 2 19  
 30489 2 20  
 30489 2 21  
 30489 2 22  
 30489 2 23  
 30489 2 24  
 30489 299999  
 30489 3 1  
 30489 3 2  
 30489 3 3  
 30489 3 4  
 30489 3 5  
 30489 3 6  
 30489 3 7  
 30489 3 8  
 30489 3 9  
 30489 3 10  
 30489 3 11  
 30489 399999  
 30489 4 1  
 30489 4 2  
 30489 4 3  
 30489 4 4  
 30489 4 5  
 30489 4 6  
 30489 4 7  
 30489 4 8  
 30489 4 9

4.0000E+00	5.0000E+00	2.3900E+03	2.5000E+02	30489	4	10
5.0000E+00	6.0000E+00	2.3700E+03	2.5000E+02	30489	4	11
6.0000E+00	8.0000E+00	2.1500E+03	2.0000E+02	30489	4	12
8.0000E+00	1.0000E+01	1.8150E+03	1.8000E+02	30489	4	13
1.0000E+01	1.5000E+01	1.6950E+03	1.7000E+02	30489	4	14
1.5000E+01	2.0000E+01	1.5000E+03	1.5000E+02	30489	4	15
2.0000E+01	3.0000E+01	1.2800E+03	1.3000E+02	30489	4	16
3.0000E+01	4.0000E+01	1.0900E+03	1.1000E+02	30489	4	17
4.0000E+01	5.0000E+01	9.8000E+02	1.0000E+02	30489	4	18
5.0000E+01	6.0000E+01	8.8000E+02	9.0000E+01	30489	4	19
6.0000E+01	8.0000E+01	7.7000E+02	8.0000E+01	30489	4	20
8.0000E+01	1.0000E+02	6.7000E+02	6.5000E+01	30489	4	21
1.0000E+02	1.5000E+02	5.7500E+02	6.0000E+01	30489	4	22
1.5000E+02	2.0000E+02	4.8500E+02	5.0000E+01	30489	4	23
ENDDATA	17	0	0	30489	4	24
ENDSUBENT	23	0	0	30489	499999	
SUBENT	30489005	850121		30489	5	1
BIB	1	2		30489	5	2
REACTION	(46-PD-105(N,G)46-PD-106,,SIG,,SPA)			30489	5	3
	MAXWELLIAN CAPTURE CROSS-SECTION AT 'KT' = 30 KEV.			30489	5	4
ENDBIB	2	0		30489	5	5
NOCOMMON	0	0		30489	5	6
DATA	3	DATA-ERR	1	30489	5	7
EN-DUMMY	DATA	DATA-ERR		30489	5	8
KEY	MB	MB		30489	5	9
4.5000E+01	1.1300E+03	1.2000E+02		30489	5	10
ENDDATA	3	0		30489	5	11
ENDSUBENT	10	0		30489	599999	
SUBENT	30489006	850121		30489	6	1
BIB	1	1		30489	6	2
REACTION	(46-PD-106(N,G)46-PD-107,,SIG,,AV)			30489	6	3
ENDBIB	1	0		30489	6	4
NOCOMMON	0	0		30489	6	5
DATA	4	DATA-ERR	15	30489	6	6
EN-MIN	EN-MAX	DATA	DATA-ERR	30489	6	7
KEY	KEY	MB	MB	30489	6	8
3.0000E+00	4.0000E+00	1.1250E+03	1.1000E+02	30489	6	9
4.0000E+00	5.0000E+00	1.0100E+03	1.0000E+02	30489	6	10
5.0000E+00	6.0000E+00	7.9000E+02	7.5000E+01	30489	6	11
6.0000E+00	8.0000E+00	8.9000E+02	8.5000E+01	30489	6	12
8.0000E+00	1.0000E+01	7.1000E+02	6.5000E+01	30489	6	13
1.0000E+01	1.5000E+01	5.6500E+02	5.5000E+01	30489	6	14
1.5000E+01	2.0000E+01	5.7000E+02	5.5000E+01	30489	6	15
2.0000E+01	3.0000E+01	4.3000E+02	4.0000E+01	30489	6	16
3.0000E+01	4.0000E+01	3.6000E+02	3.5000E+01	30489	6	17
4.0000E+01	5.0000E+01	2.8500E+02	2.5000E+01	30489	6	18
5.0000E+01	6.0000E+01	2.5500E+02	2.5000E+01	30489	6	19
6.0000E+01	8.0000E+01	2.2000E+02	2.5000E+01	30489	6	20
8.0000E+01	1.0000E+02	1.9500E+02	2.0000E+01	30489	6	21
1.0000E+02	1.5000E+02	1.7500E+02	2.0000E+01	30489	6	22
1.5000E+02	2.0000E+02	1.5700E+02	2.0000E+01	30489	6	23
ENDDATA	17	0	0	30489	6	24
ENDSUBENT	23	0	0	30489	699999	
SUBENT	30489007	850121		30489	7	1
BIB	1	2		30489	7	2
REACTION	(46-PD-106(N,G)46-PD-107,,SIG,,SPA)			30489	7	3
	MAXWELLIAN CAPTURE CROSS-SECTION AT 'KT' = 30 KEV.			30489	7	4
ENDBIB	2	0		30489	7	5
NOCOMMON	0	0		30489	7	6
DATA	3	DATA-ERR	1	30489	7	7
EN-DUMMY	DATA	DATA-ERR		30489	7	8
KEY	MB	MB		30489	7	9
4.5000E+01	3.7000E+02	4.0000E+01		30489	7	10
ENDDATA	3	0		30489	7	11

ENDSUBENT 10 0 799999  
SUBENT 30489008 850121 1 8 30489 8 799999  
BIB 1 1 30489 8 2  
REACTION (46-PD-108(N,G)46-PD-109,,SIG,,AV) 30489 8 3  
ENDBIB 1 0 30489 8 4  
NOCOMMON 0 0 30489 8 5  
DATA 4 15 30489 8 6  
EN-MIN EN-MAX DATA DATA-ERR  
KEY KEV MB MB

3.00000E+00 4.00000E+00 1.03000E+03 1.10000E+02 30489 8 7  
4.00000E+00 5.00000E+00 8.55000E+02 8.50000E+01 30489 8 8  
5.00000E+00 6.00000E+00 8.85000E+02 9.00000E+01 30489 8 9  
6.00000E+00 8.00000E+00 7.00000E+02 7.00000E+01 30489 8 10  
8.00000E+00 1.00000E+01 7.50000E+02 7.50000E+01 30489 8 11  
1.00000E+01 1.50000E+01 5.70000E+02 6.00000E+01 30489 8 12  
1.50000E+01 2.00000E+01 4.75000E+02 5.00000E+01 30489 8 13  
2.00000E+01 3.00000E+01 3.80000E+02 4.00000E+01 30489 8 14  
3.00000E+01 4.00000E+01 3.10000E+02 3.00000E+01 30489 8 15  
4.00000E+01 5.00000E+01 2.65000E+02 3.00000E+01 30489 8 16  
5.00000E+01 6.00000E+01 2.30000E+02 2.50000E+01 30489 8 17  
6.00000E+01 8.00000E+01 2.05000E+02 2.50000E+01 30489 8 18  
8.00000E+01 1.00000E+02 1.80000E+02 2.00000E+01 30489 8 19  
1.00000E+02 1.50000E+02 1.55000E+02 2.00000E+01 30489 8 20  
1.50000E+02 2.00000E+02 1.45000E+02 2.00000E+01 30489 8 21  
ENDDATA 17 0 30489 8 22  
ENDSUBENT 23 0 30489 8 23  
SUBENT 30489009 850121 2 0 30489 8 24  
BIB 1 1 30489 9 1  
REACTION (46-PD-108(N,G)46-PD-109,,SIG,,SPA) 30489 9 2  
MAXWELLIAN CAPTURE CROSS-SECTION AT 'KT' = 30 KEV. 30489 9 3  
ENDBIB 2 0 30489 9 4  
NOCOMMON 0 0 30489 9 5  
DATA 3 1 30489 9 6  
EN-DUMMY DATA DATA-ERR  
KEY MB MB

4.50000E+01 3.30000E+02 3.50000E+01 30489 9 7  
ENDDATA 3 0 30489 9 8  
ENDSUBENT 10 0 30489 9 9  
SUBENT 30489010 850121 1 0 30489 9 10  
BIB 1 1 30489 9 11  
REACTION (46-PD-110(N,G)46-PD-111,,SIG,,AV) 30489 9 12  
ENDBIB 1 0 30489 9 13  
NOCOMMON 0 0 30489 9 14  
DATA 4 15 30489 9 15  
EN-MIN EN-MAX DATA DATA-ERR  
KEY KEV MB MB

3.00000E+00 4.00000E+00 8.70000E+02 1.00000E+02 30489 10 1  
4.00000E+00 5.00000E+00 9.95000E+02 1.10000E+02 30489 10 2  
5.00000E+00 6.00000E+00 6.40000E+02 7.00000E+01 30489 10 3  
6.00000E+00 8.00000E+00 7.10000E+02 7.50000E+01 30489 10 4  
8.00000E+00 1.00000E+01 7.25000E+02 8.00000E+01 30489 10 5  
1.00000E+01 1.50000E+01 4.45000E+02 5.00000E+01 30489 10 6  
1.50000E+01 2.00000E+01 3.85000E+02 4.50000E+01 30489 10 7  
2.00000E+01 3.00000E+01 2.70000E+02 3.00000E+01 30489 10 8  
3.00000E+01 4.00000E+01 2.45000E+02 3.00000E+01 30489 10 9  
4.00000E+01 5.00000E+01 2.10000E+02 2.50000E+01 30489 10 10  
5.00000E+01 6.00000E+01 1.80000E+02 2.00000E+01 30489 10 11  
6.00000E+01 8.00000E+01 1.45000E+02 2.00000E+01 30489 10 12  
8.00000E+01 1.00000E+02 1.35000E+02 2.00000E+01 30489 10 13  
1.00000E+02 1.50000E+02 1.25000E+02 2.00000E+01 30489 10 14  
1.50000E+02 2.00000E+02 1.15000E+02 2.00000E+01 30489 10 15  
ENDDATA 17 0 30489 10 16  
ENDSUBENT 23 0 30489 10 17  
SUBENT 30489011 850121 2 0 30489 10 18  
BIB 1 1 30489 11 19  
REACTION (46-PD-108(N,G)46-PD-109,,SIG,,AV) 30489 10 20  
MAXWELLIAN CAPTURE CROSS-SECTION AT 'KT' = 30 KEV. 30489 10 21  
ENDBIB 2 0 30489 10 22  
NOCOMMON 0 0 30489 10 23  
DATA 3 1 30489 10 24  
EN-DUMMY DATA DATA-ERR  
KEY MB MB

4.50000E+01 3.30000E+02 3.50000E+01 30489 11 1  
ENDDATA 3 0 30489 11 2  
ENDSUBENT 10 0 30489 11 3  
SUBENT 30489012 850121 1 0 30489 11 4  
BIB 1 1 30489 11 5  
REACTION (46-PD-110(N,G)46-PD-111,,SIG,,AV) 30489 11 6  
ENDBIB 1 0 30489 11 7  
NOCOMMON 0 0 30489 11 8  
DATA 4 15 30489 11 9  
EN-MIN EN-MAX DATA DATA-ERR  
KEY KEV MB MB

1 2  
 (46-PD-110(N,G)46-PD-111,,SIG,,SPA)  
 MAXWELLIAN CAPTURE CROSS-SECTION AT 'KT' = 30 KEV.

1 2  
 REACTION (46-PD-110(N,G)46-PD-111,,SIG,,SPA)  
 MAXWELLIAN CAPTURE CROSS-SECTION AT 'KT' = 30 KEV.

ENDBIB 0  
 NOCOMMON 0  
 NODATA 0  
 ENDSUBENT 6  
 ENTRY 12  
 ENDBIB 31092 851217  
 SUBENT 31092001 851217 6  
 BIB 5

INSTITUTE (3INDTRM)  
 REFERENCE (C,62MADRAS,,369,62)  
 AUTHOR (V.P.DUGGAL,C.L.THAPER)  
 TITLE NEUTRON CROSS SECTION MEASUREMENTS IN THERMAL AND  
 SUBTHERMAL ENERGY RANGE.  
 HISTORY (771115T) CONVERTED FROM EXFOR 70092

ENDBIB 0  
 NOCOMMON 0  
 ENDSUBENT 9  
 SUBENT 31092002 851217 3  
 BIB 3

REACTION (46-PD-0(N,TOT),,SIG)  
 STATUS (SCSRS)  
 FACILITY (SPECC) CRYSTAL SPECTROMETER  
 ENDBIB 0  
 NOCOMMON 3  
 DATA 39

EN DATA DATA-ERR  
 MEV B

1.9700E-09	2.5000E+01	1.5000E+00
2.1500E-09	2.3200E+01	1.2000E+00
2.2900E-09	2.2500E+01	1.0000E+00
2.5300E-09	2.1000E+01	1.0000E+00
2.8800E-09	1.9800E+01	1.0000E+00
3.0000E-09	1.9000E+01	8.0000E-01
3.2200E-09	1.8800E+01	1.0000E+00
3.4900E-09	1.7200E+01	
3.7500E-09	1.6500E+01	
4.0500E-09	1.7700E+01	
4.4300E-09	1.6800E+01	
4.9000E-09	1.8500E+01	
9.4000E-09	1.4700E+01	
9.9000E-09	1.3800E+01	
1.0800E-08	1.4200E+01	
1.1800E-08	1.3700E+01	
1.2800E-08	1.2200E+01	
1.4100E-08	1.2100E+01	
1.4800E-08	1.2500E+01	
1.5500E-08	1.3500E+01	
1.6000E-08	1.2600E+01	
1.7600E-08	1.2100E+01	
1.8500E-08	1.2500E+01	
1.9100E-08	1.1800E+01	
1.9500E-08	1.1200E+01	
2.2000E-08	1.1300E+01	
2.3500E-08	1.0750E+01	
2.5000E-08	1.0600E+01	
2.6500E-08	1.1500E+01	
2.8000E-08	1.0700E+01	
3.0000E-08	1.0300E+01	
3.2500E-08	1.0400E+01	
3.4500E-08	9.8000E+00	
3.7000E-08	9.7000E+00	

30489	11	2
30489	11	3
30489	11	4
30489	11	5
30489	11	6
30489	11	7
30489	1199999	
31092	0	1
31092	1	1
31092	1	2
31092	1	3
31092	1	4
31092	1	5
31092	1	6
31092	1	7
31092	1	8
31092	1	9
31092	1	10
31092	199999	
31092	2	1
31092	2	2
31092	2	3
31092	2	4
31092	2	5
31092	2	6
31092	2	7
31092	2	8
31092	2	9
31092	2	10
31092	2	11
31092	2	12
31092	2	13
31092	2	14
31092	2	15
31092	2	16
31092	2	17
31092	2	18
31092	2	19
31092	2	20
31092	2	21
31092	2	22
31092	2	23
31092	2	24
31092	2	25
31092	2	26
31092	2	27
31092	2	28
31092	2	29
31092	2	30
31092	2	31
31092	2	32
31092	2	33
31092	2	34
31092	2	35
31092	2	36
31092	2	37
31092	2	38
31092	2	39
31092	2	40
31092	2	41
31092	2	42
31092	2	43
31092	2	44

4.4000E-08	9.2000E+00	0	0	31092	2	45
4.7500E-08	9.5000E+00	0	0	31092	2	46
5.2000E-08	9.0000E+00	0	1	31092	2	47
5.6000E-08	9.1000E+00	0	1	31092	2	48
6.3500E-08	8.6500E+00	0	4	31092	2	50
ENDDATA	41			31092	299999	
ENDSUBENT	49			31092	299999	
ENDENTRY	2			31334	0	1
ENTRY	31334	851217		31334	1	1
SUBENT	31334001	851217		31334	1	2
BIB	4			31334	1	3
INSTITUTE	(3INDTRM)			31334	1	4
AUTHOR	(V.P.DUGGAL,C.L.THAPER)			31334	1	5
REFERENCE	(C.62MADRAS,369,6202)			31334	1	6
HISTORY	(771115T) CONVERTED FROM EXFOR 70334			31334	1	7
ENDBIB	4			31334	1	8
NOCOMMON	0			31334	199999	
ENDSUBENT	7			31334	2	1
SUBENT	31334002	851217		31334	2	2
BIB	3			31334	2	3
REACTION	(46-PD-(N,TOT),,SIG)			31334	2	4
STATUS	(SCRS)			31334	2	5
FACILITY	(SPECC)	CRYSTAL SPECTROMETER		31334	2	6
ENDBIB	3			31334	2	7
NOCOMMON	0			31334	2	8
DATA	3			31334	2	9
EN	DATA	DATA-ERR		31334	2	10
MEV	B	B		31334	2	11
4.7200E-09	1.8500E+01	1.0000E+00		31334	2	12
5.0000E-09	2.0500E+01	1.5000E+00		31334	2	13
5.4200E-09	2.1100E+01	1.2000E+00		31334	2	14
5.9000E-09	2.1500E+01	1.0000E+00		31334	2	15
6.4500E-09	2.1500E+01	1.0000E+00		31334	2	16
7.0500E-09	1.8800E+01	7.0000E-01		31334	2	17
7.7000E-09	1.7200E+01	8.0000E-01		31334	2	18
8.6000E-09	1.5800E+01	8.0000E-01		31334	2	19
ENDDATA	10			31334	299999	
ENDSUBENT	18			31334	299999	
ENDENTRY	2			31334	299999	
ENDTRANS	5			Z9999999999999999		

TRANS	Ø	860503	Ø
ENTRY	30336	850314	Ø
SUBENT	30336001	840530	Ø
BIB	17	45	Ø
TITLE	MEASURED (N,P) REACTION CROSS-SECTIONS AND THEIR PREDICTED VALUES AT 14.8 MEV		
AUTHOR	(R.PRASAD, D.C.SARKAR)		
INSTITUTE	(3INDMUA)		
EXP-YEAR	(69)		
REFERENCE	(J,NC/A,3,(3),467,7106) DETAILED. TABLE GIVEN. 45 NUCLIDES, 8 OF THEM REPUBLISHED FROM NUCL.PHYS. 85,476. (FOR THESE SEE ENTRY 30007)		
SAMPLE	(C.69ROORKEE,2,112,6912) SHORTER. RESULTS IDENTICAL (J,NP,85,476,6609) RESULTS FOR 8 NUCLIDES SPECTROSCOPICALLY PURE SUBSTANCES OF CHEMICAL PURITY BETTER THAN 99.9 PER-CENT USED		
MONITOR	(26-FE-56(N,P)25-MN-56.,SIG)		
FACILITY	WEIGHTED AVERAGE OF VARIOUS MEASUREMENTS (CCW) COCKCROFT-WALTON ACCELERATOR		
INC-SOURCE	(D-T) DEUTERON-TRITIUM		
METHOD	(ACTIV) ACTIVATION		
PART-DET	(B-) DECAY BETA- OR (DG) DECAY GAMMAS		
DETECTOR	END-WINDOW COUNTER FOR DETECTION OF BETAS (NAICR) 3.8CM*3.8CM NAI(TL) CRYSTAL FOR DETECTION OF GAMMAS		
CORRECTION	THE FOLLOWING CORRECTIONS WERE CONSIDERED= -INFLUENCE OF LOW ENERGY NEUTRONS (NEGLECTIBLE) -VARIATION OF NEUTRON FLUX DURING IRRADIATION. DATA OF ACCELERATOR RUNS WITH VARIATIONS GREATER THAN 2 PER-CENT WERE REJECTED		
ERR-ANALYS	-COMPETING REACTIONS FROM OTHER NUCLIDES (NEGLECTED) MAINLY STATISTICAL ERRORS. TAKEN INTO CONSIDERATION WERE ALSO -ERRORS DUE TO NONREPRODUCIBILITY OF IRRADIATION AND COUNTING GEOMETRIES (LESS THAN 1 PER-CENT) -ERRORS OF SAMPLE WEIGHTS (NEGLECTIBLE).		
COMMENT	COMPILER'S NOTE= MISPRINTS FOUND IN NUOVO CIM.A3,467= TABLE 1,COL-2.(RESID.NUCL.),'CU-60-M' SHOULD READ 'CO-60-M' (SAME ERROR ALSO IN 69ROORKEE,2,112) 'Y-99' SHOULD READ 'Y-92'. COL.1(TARGET NUCL.),'PB-105' SHOULD READ 'PD-105' CROSS-REFERENCE= RESULTS FOR 8 NUCLIDES FROM NUCL.PHYS.85,476,1966 (REPUBLISHED IN NUOVO CIM.A3,467, PARTLY WITH MINOR NUMERICAL CHANGES) ARE GIVEN IN EXFOR ENTRY 30007.		
STATUS	DATA TAKEN FROM NUOVO CIM.A3,3,467,1971, TABLE 1.		
HISTORY	(760525C) OS. (810122A) OS.- RATIO CS/STANDARD ADDED TO SUBENTRY 020.		
ENDBIB	45	Ø	Ø
COMMON	3	3	Ø
EN	EN-RSL	MONIT	Ø
MEV	MEV	MB	Ø
ENDCOMMON	1.4800E+01	5.0000E-01	1.2600E+02
ENDSUBENT	52	Ø	Ø
SUBENT	30336028	840530	2
BIB	2	Ø	Ø
REACTION	(42-MO-98(N,P)41-NB-98.,SIG)		
HALF-LIFE	(HL,41-NB-98-G) 1.0 HR		
ENDBIB	2	Ø	Ø
NOCOMMON	Ø	Ø	Ø
DATA	Ø	3	1
DATA	DATA-ERR	HL	Ø

MB 1.9000E+01 3.0000E+00 1.0000E+00  
 ENDDATA 0  
 ENDSUBENT 3  
 ENDENTRY 10 0  
 ENTRY 2 1  
 SUBENT 30394 850311  
 BIB 30394001 850121  
 14 31  
 TITLE  
 AUTHOR -NUCLEAR ACTIVATION CROSS SECTIONS OF (N,P) REACTION  
 INSTITUTE AT 14.7 MEV -  
 REFERENCE (V.K.TIKKU,H.SINGH,B.SETHI)  
 (3INDSAH)  
 (C,72CHANDG,2,115,7212)  
 (P,INDC(SEC)-35,98,7308)=  
 (P,BARC-695,22,73) SAME AS 72CHANDIGR. NO DATA GIVEN.  
 NO INFORMATION ON ZR.  
 SAMPLE SPECTROSCOPICALLY PURE, MIXED WITH THE MONITOR REACTION  
 UNLESS AN INTERNAL MONITOR WAS AVAILABLE. THE TARGET  
 SAMPLE WAS PACKED IN A THIN POLYTHENE BAG FOR  
 IRRADIATION.  
 MONITOR (13-AL-27(N,P)12-MG-27,,SIG)  
 = 53+-5 MB (T(1/2)=9.5MIN),  
 (13-AL-27(N,A)11-NA-24,,SIG)  
 = 114+-7 MB (T(1/2)=15HR), BOTH TAKEN  
 FROM POULARIKAS AND FINK,PHYS.REV.115(1959)989.  
 THE MONITOR SAMPLE WAS IN THE SHAPE OF AL(2)-O(3).  
 FACILITY (CCW) 400 KW CASCADE GENERATOR.  
 INC-SOURCE (D-T)  
 METHOD FLUX DENSITY WAS AROUND 5.E+9 N/CM2/SEC.  
 DETECTOR (ACTIV) ACTIVATION.  
 (GELI) 32.2 CM3 GE(LI) DETECTOR. THE SYSTEM RESOLUTION  
 OF THE DETECTOR COUPLED TO ORTEC UNITS WAS FOUND TO BE  
 2.1 KEV FOR THE 1332 KEV GAMMA-RAY OF CO-60.  
 PART-DET (DG) DECAY GAMMAS.  
 ERR-ANALYS NO FURTHER INFORMATION.  
 STATUS DATA TAKEN FROM TABLE OF PROC.NUCL.PHYS.AND SOLID STATE  
 PHYS.SYMP.,CHANDIGARH,28 DEC 1972 TO 1 JAN 1973,  
 VOL15B,115.  
 HISTORY (770331C) KO.  
 ENDBIB 31 0  
 COMMON 6 3  
 EN EN-RSL MONIT1 MONIT1-ERR MONIT2 MONIT2-ERR  
 MEV MB MB MB MB MB  
 1.4700E+01 3.0000E-01 5.3000E+01 5.0000E+00 1.1400E+02 7.0000E+00  
 ENDCOMMON 3 0  
 ENDSUBENT 38 0  
 SUBENT 30394012 850121 2  
 BIB 2 2  
 REACTION (42-MO-98(N,P)41-NB-98,,SIG)  
 HALF-LIFE (HL,41-NB-98-M) = 51' MIN.  
 ENDBIB 2 0  
 NOCOMMON 0 0  
 DATA 3 1  
 DATA DATA-ERR HL  
 MB MB MIN  
 7.3000E+00 8.0000E-01 5.1000E+01  
 ENDDATA 3 0  
 ENDSUBENT 10 0  
 ENTRY 2 1  
 ENTRY 30576 840911  
 SUBENT 30576001 840911  
 BIB 14 28  
 TITLE NEUTRON NUCLEAR CROSS SECTION DATA FOR FUSION  
 TECHNOLOGY



AUTHOR	(C.V.SRINIVASA RAO,J.RAMA RAO)	1	5
INSTITUTE	(3INDAUV)	30576	1
REFERENCE	(C.79KNOX,,848.7910)	30576	6
SAMPLE	POWDER WITH PURITY 99.9 PER-CENT.MIXED WITH	30576	7
	ALUMINIUM POWDER WHICH WAS USED AS MONITOR	30576	8
MONITOR	(13-AL-27(N,A)11-NA-24,,SIG) GAMMA TRANSITION AFTER	30576	9
	BETA-DECAY	30576	10
	(13-AL-27(N,P)12-MG-27,,SIG) GAMMA-TRANSITION AFTER	30576	11
	BETA-DECAY	30576	12
FACILITY	(CCW) 600.KEV COCKROFT-WALTON ACC.OF ANDHRA UNIV.	30576	13
INC-SOURCE	(D-T)	30576	14
DECAY-MON	(11-NA-24,15.HR,DG) FOR FIRST MONIT.REACTION	30576	15
	(12-MG-27,9.5MIN,DG) FOR SECOND MONIT REACTION	30576	16
METHOD	(ACTIV) ACTIVATION METHOD WITH THE VERSATILE MIXED	30576	17
	POWDER TECHNIQUE	30576	18
DETECTOR	(GELI) THE SIMULATION TECHNIQUE WITH TAKING INTO	30576	19
	ACCOUNT THE SELF-ABSORPTION AND SCATTERING OF GAMMAS	30576	20
	WITHIN THE SAMPLE WAS USED FOR CALIBRATION OF THE	30576	21
	DETECTOR	30576	22
ERR-ANALYS	(EN-ERR) ENERGY SPREAD MAINLY CONNECTED WITH GEOMETRY	30576	23
	OF EXPERIMENT	30576	24
	(DATA-ERR) TOTAL ERROR	30576	25
	(MONIT1-ERR) NO INF.	30576	26
	(MONIT2-ERR) NO INF.	30576	27
STATUS	DATA TAKEN FROM THE 79KNOXVILLE,P.850, TABLE 1 (1980)	30576	28
HISTORY	(810305C) VP.	30576	29
ENDBIB	28	30576	30
COMMON	6	30576	31
EN	EN-ERR MONIT1 MONIT1-ERR MONIT2 MONIT2-ERR	30576	32
MEV	MB MB MB MB MB	30576	33
ENDCOMMON	1.4200E+01 2.0000E-01 1.1500E+02 3.0000E+00 7.2000E+01 5.0000E+00	30576	34
ENDSUBENT	35	30576	35
SUBENT	30576003	30576	36
BIB	840911	30576	1
REACTION	(42-MO-92(N,2N)42-MO-91-M,,SIG)	30576	2
DECAY-DATA	(42-MO-91-M,65.SEC,DG,652.9,0.427,AR,511.,1.)	30576	3
ENDBIB	2	30576	3
NOCOMMON	0	30576	4
DATA	0	30576	5
DATA	DATA-ERR	30576	6
MB	1	30576	7
	1.9000E+01 3.0000E+00	30576	8
ENDDATA	3	30576	9
ENDSUBENT	10	30576	10
SUBENT	30576005	30576	11
BIB	840911	30576	11
REACTION	(42-MO-100(N,P)41-NB-100-M,,SIG)	30576	1
DECAY-DATA	(41-NB-100-M,11.MIN,DG,620.,0.6)	30576	2
ENDBIB	2	30576	3
NOCOMMON	0	30576	4
DATA	0	30576	5
DATA	DATA-ERR	30576	6
MB	2	30576	7
	9.0000E+00 1.0000E+00	30576	8
ENDDATA	3	30576	9
ENDSUBENT	10	30576	10
ENTRY	3	30576	11
ENTRY	30612	30576	11
SUBENT	30612001	30576	11
BIB	840912	30576	1
	840912	30576	2
TITLE	ABSOLUTE (N,2N) CROSS SECTIONS OF NUCLEI NEAR 14 MEV	30576	3
AUTHOR	(A.CHATTERJEE,A.NATH,A.M.GHOSE)	30576	4
INSTITUTE	(3INDBOS)	30576	5

REFERENCE	(C,69ROORKEE,2,117,6912)	1	6
	(R,BARC-474,50,70)	30612	1
	====COMPILER NOTE====IT WAS DECIDED BY COMPILER	30612	1
	(VP,811023) THAT DATA IN THIS ENTRY ARE	30612	1
	INDEPENDENT FROM DATA IN ENTRY 30061	30612	1
FACILITY	(CCW) 250 KEV COCKROFT-WALTON ACCELERATOR	30612	1
INC-SOURCE	(D-T) MONOENERGETIC D-T NEUTRONS.E-DEUT=120.KEV	30612	1
METHOD	(ACTIV) SIGMA DETERMINED FROM ABSOLUTE VALUES OF	30612	1
	NEUTRON FLUX AND POSITRON ACTIVITY OF IRRADIATED	30612	1
	SAMPLE	30612	1
INC-SPECT	THE SAMPLES WERE IRRADIATED AT THREE DIFFERENT	30612	1
	ENERGIES BY THE PLACING OF THE SAMPLES AT DIFFERENT	30612	1
	ANGLES WITH RESPECT TO THE INCIDENT DEUTRON BEAM	30612	1
DETECTOR	(SCIN) PLASTIC SCINTILLATOR 1.25 CM IN HEIGHT AND	30612	1
	2.5 CM IN RADIUS WAS USED FOR N-FLUX MEASUREMENT	30612	1
	(NAICR) A SLOW/FAST COINCIDENCE SPECTROMETER WITH TWO	30612	1
	CRYSTALS FOR POSITRON ACTIVITY MEASUREMENT	30612	1
ERR-ANALYS	(DATA-ERR) NO INFORMATION	30612	1
HISTORY	(810610R) NUMERICAL DATA RECEIVED FROM AUTHOR	30612	1
	(811123C) VP.	30612	1
ENDBIB	23	0	27
NOCOMMON	0	0	26
ENDSUBENT	26	0	25
SUBENT	30612004	840912	1
BIB	5	15	1
REACTION	(42-MO-92(N,2N)42-MO-91,,SIG)	30612	4
	====COMPILER NOTE 811023 VP.	30612	4
	42-MO-91 NUCLEUS HAS ISOMERIC STATE WITH IT=0.50	30612	4
	AND MUCH SHORTER H-LIFE. THE AUTHORS DID NOT	30612	4
	MENTION IT IN PAPER. AS RESULT THE REAL MEASURABLE	30612	4
	CROSS SECTION COULD BE THE PART OF TOT. (N,2N) C.S.	30612	4
	((42-MO-92(N,2N)42-MO-91-G,,SIG)	30612	4
	+0.50*((42-MO-92(N,2N)42-MO-91-MI,,SIG))====	30612	4
MONITOR	(29-CU-63(N,2N)29-CU-62,,SIG) DATA FROM SUBENT	30612	4
	30612002 HAVE BEEN USED AS MONITOR	30612	4
MONIT-REF	(30612002,A.CHATTERJEE+,C.69ROORKEE,2,117,6912)	30612	4
DECAY-MON	(29-CU-62,9.8MIN,B+)	30612	4
STATUS	NUMERICAL DATA IN FORM OF TABLE WERE RECEIVED FROM	30612	4
	A.CHATTERJEE UPON REQUEST. THE SAME VALUES ARE AT	30612	4
	GRAPH IN PAPER UNDER FIRST REFERENCE	30612	4
ENDBIB	15	0	18
NOCOMMON	0	0	19
DATA	3	3	20
EN	DATA	DATA-ERR	21
MEV	MB	MB	22
	1.4200E+01	1.5000E+02	1.2000E+01
	1.4500E+01	1.8000E+02	1.3000E+01
	1.4800E+01	2.2000E+02	1.5000E+01
ENDDATA	5	0	26
ENDSUBENT	25	0	25
ENDENTRY	2	1	499999
ENTRY	30804	850305	30612999999999
SUBENT	30804001	840706	30804
BIB	12	37	1
TITLE	CROSS SECTIONS OF SOME REACTIONS INDUCED BY 14 MEV	30804	1
	NEUTRONS	30804	1
AUTHOR	(I.GARLEA,C.MIRON,D.DOBREA,C.ROTH,H.ROSU,S.RAPEANU)	30804	1
INSTITUTE	(3RUMCIP)	30804	1
REFERENCE	(W,GARLEA,8311) PAPER SUBMITTED TO THE 13-TH INTERN.	30804	1
	SYMPOSIUM ON NUCLEAR PHYSICS,GAUSSIG,GDR,21-25 NOVEMBER	30804	1
	1983. RESULTS OF THE RESEARCH CONTRACT TA/INT/018	30804	1
	WITH IAEA	30804	1
MONITOR	(92-U-235(N,F,,SIG) FISSION CHAMBER WITH U-235 USED	30804	1
	AS REFERENCE MONITOR. U-235 DEPOSIT CONTAINS 96.60	30804	1

MICROGRAMMS (2.281E+17 NUCLEI) OF U-235 WITH	30804	1	13
IMPURITIES (IN ATOM PER-CENT) U-234 - 0.02,	30804	1	14
U-236 - 0.04, U-238 - 0.07	30804	1	15
(D-T) TEXAS NEUTRON GENERATOR (MODEL 99000)	30804	1	16
INTERNATIONAL SYMPOSIUM ON NUCLEAR PHYSICS, GAUSSIG,	30804	1	17
GDR, 21-25 NOVEMBER 1983.	30804	1	18
(ACTIV) ACTIVATION METHOD	30804	1	19
CORRECTION FROM NEUTRON SOURCE DISPLACEMENT RANGING	30804	1	20
FROM 0.9894 TO 1.030	30804	1	21
CORRECTION FOR SPOT DISPLACEMENT, IN MM, AVERAGED	30804	1	22
FOR ALL TIME IRRADIATION 0.335 - 3.00	30804	1	23
CORRECTION FOR NEUTRON SOURCE DISPLACEMENT 0.960-0.98930804	30804	1	24
CORRECTION FOR GAMMA SELFABSORPTION 0.993 - 0.998	30804	1	25
IMPURITY CORRECTION 0.99729 - 0.99994	30804	1	26
(EN-RSL) DISPERSION OF THE INCIDENT NEUTRONS	30804	1	27
(ERR-T) TOTAL ERROR INCLUDING THE ASSOCIATED ERRORS	30804	1	28
STATISTICAL ERROR 0.4 - 1.2 PER-CENT	30804	1	29
ERROR IN ABSOLUTE EFFICIENCY CALIBRATION	30804	1	30
1.5 - 2.1 PER-CENT	30804	1	31
BACKGROUND SUBTRACTION ERROR 0.5 - 0.9	30804	1	32
PER-CENT	30804	1	33
ERROR IN THE ABSOLUTE FLUX DETERMINATION	30804	1	34
2.0 - 2.3 PER-CENT	30804	1	35
(GELI) 100.CM**3, CALIBRATED BY I.GARLEA AND ST.CERC	30804	1	36
(FISCH) FOR AVERAGE FLUX DETERMINATION	30804	1	37
DATA WERE TAKEN FROM PAPER SUBMITTED TO GAUSSIG	30804	1	38
(840518C) VP.	30804	1	39
37	0	1	40
EN-RSL	30804	1	41
MEV	30804	1	42
1.4800E+01 6.5000E-02	0	1	43
ENDCOMMON	0	1	44
ENDSUBENT	44	1	45
SUBENT	30804007	840706	19999
BIB	3	7	1
REACTION	0	7	2
SAMPLE	(42-MO-98(N,P)41-NB-98, SIG)	0	3
COMMENT	PURE METALLIC FOILS 20.0 MM IN DIAMETER, 3.242999 G	0	4
	OR 3.215952 G BY WEIGHT AND 99.9995 PER-CENT PURITY	0	5
	REACTION RATES WERE CALCULATED BY USING THE NUCLEAR	0	6
	CONSTANTS FROM - DIE GAMMA-LINIEN DER RADIONUCLIDE-	0	7
	(1970)	0	8
ENDBIB	6	0	9
NOCOMMON	0	0	10
DATA	2	1	11
DATA	ERR-T		12
MB	PER-CENT		13
5.4000E+00 6.3000E+00			14
ENDDATA	3	0	15
ENDSUBENT	14	0	16
ENDENTRY	2	1	17
ENTRY	31281	851217	799999
SUBENT	31281001	851217	0
BIB	6	6	1
INSTITUTE	(3INDSAH)		2
REFERENCE	(J,NP,85,288,66)		3
AUTHOR	(S.C.GUJRATHI,S.K.MUKHERJEE)		4
TITLE	DECAY OF NB98 AND THE ENERGY LEVELS OF MO98.		5
MONITOR	(29-CU-63(N,2N)29-CU-62, SIG)		6
HISTORY	(771115T) CONVERTED FROM EXFOR 70281		7
ENDBIB	6	0	8
COMMON	1	3	9
MONIT			10
MB			11
			12

```
5.5600E+02
ENDCOMMON          3      0
ENDSUBENT          13      0
SUBENT             31281002  851217  3
BIB
REACTION           (42-MO-98(N,P)41-NB-98-M,,SIG)
STATUS             (SCRS)
METHOD             (ACTIV)
ENDBIB             3      0
COMMON             1      3
HL
MIN
1.5000E+00
ENDCOMMON          3      0
DATA               3      1
EN                 DATA      DATA-ERR
MEV                B
1.4800E+01 2.0000E-03 1.0000E-03
ENDDATA            3      0
ENDSUBENT          15      0
SUBENT             31281003  851217  3
BIB
REACTION           (42-MO-98(N,P)41-NB-98-G,,SIG)
STATUS             (SCRS)
METHOD             (ACTIV)
ENDBIB             3      0
COMMON             1      3
HL
MIN
5.1000E+01
ENDCOMMON          3      0
DATA               3      1
EN                 DATA      DATA-ERR
MEV                B
1.4800E+01 1.2000E-02 2.0000E-03
ENDDATA            3      0
ENDSUBENT          15      0
ENDENTRY           3      1
ENDTRANS           6      1
```

```
31281 1 13
31281 1 14
31281 199999
31281 2 1
31281 2 2
31281 2 3
31281 2 4
31281 2 5
31281 2 6
31281 2 7
31281 2 8
31281 2 9
31281 2 10
31281 2 11
31281 2 12
31281 2 13
31281 2 14
31281 2 15
31281 299999
31281 3 1
31281 3 2
31281 3 3
31281 3 4
31281 3 5
31281 3 6
31281 3 7
31281 3 8
31281 3 9
31281 3 10
31281 3 11
31281 3 12
31281 3 13
31281 3 14
31281 3 15
31281 399999
Z99999999999999
```

TRANS	Ø	86Ø61Ø	Ø	Ø
ENTRY	3Ø643	85Ø826	Ø	1
SUBENT	3Ø643ØØ1	85Ø826	Ø	1
BIB	Ø	Ø	Ø	2
TITLE	14	Ø	Ø	3
AUTHOR	Ø	Ø	Ø	4
INSTITUTE	Ø	Ø	Ø	5
SAMPLE	Ø	Ø	Ø	6
FACILITY	Ø	Ø	Ø	7
INC-SOURCE	Ø	Ø	Ø	8
ERR-ANALYS	Ø	Ø	Ø	9
HISTORY	Ø	Ø	Ø	1Ø
ENDBIB	Ø	Ø	Ø	11
COMMON	Ø	Ø	Ø	12
EN	Ø	Ø	Ø	13
MEV	Ø	Ø	Ø	14
1.47ØØE+Ø1	Ø	Ø	Ø	15
ENDCOMMON	Ø	Ø	Ø	16
ENDSUBENT	Ø	Ø	Ø	17
SUBENT	Ø	Ø	Ø	18
BIB	Ø	Ø	Ø	19
REACTION	Ø	Ø	Ø	2Ø
DECAY-DATA	Ø	Ø	Ø	21
REFERENCE	Ø	Ø	Ø	22
MONITOR	Ø	Ø	Ø	23
DECAY-MON	Ø	Ø	Ø	24
METHOD	Ø	Ø	Ø	25
DETECTOR	Ø	Ø	Ø	29999
STATUS	Ø	Ø	Ø	2
ENDBIB	Ø	Ø	Ø	2
NOCOMMON	Ø	Ø	Ø	2
DATA	Ø	Ø	Ø	2
DATA	Ø	Ø	Ø	2
MB	Ø	Ø	Ø	2
DATA-ERR	Ø	Ø	Ø	2
MONIT	Ø	Ø	Ø	2
MB	Ø	Ø	Ø	2
3.1ØØØE+Ø2	Ø	Ø	Ø	2
ENDDATA	Ø	Ø	Ø	2
ENDSUBENT	Ø	Ø	Ø	2
SUBENT	Ø	Ø	Ø	2
BIB	Ø	Ø	Ø	2
REACTION	Ø	Ø	Ø	2
DECAY-DATA	Ø	Ø	Ø	2
REFERENCE	Ø	Ø	Ø	2
MONITOR	Ø	Ø	Ø	2
DECAY-MON	Ø	Ø	Ø	2

MEASUREMENT OF REACTION CROSS-SECTION RATIOS OF SOME NEUTRON REACTIONS USING GAMMA AND X-RAY SPECTROMETRY (A. REGGOGU, G. PAIC, A. CHIADLI)

(3MORMOH) LABORATOIRE DE PHYSIQUE NUCLEAIRE, THE FIRST AND THIRD AUTHORS

(3YUGRBZ) THE SECOND AUTHOR

TWO NATURAL INDIUM FOILS OF 1. CM DIAMETER AND Ø.1 MM THICK

(CCW, 3MORMOH) NEUTRON GENERATOR OF THE NUCLEAR PHYSICS LABORATORY IN RABAT (D-T)

NO INFORMATION (821228C) VP. (85ØØ32ØA) DG. - SUBENTRIES 3Ø643ØØ9 - Ø1Ø ADDED. -

Ø

3

21

Ø

85Ø826

16

(49-IN-113(N,2N)49-IN-112-G, SIG)

(49-IN-112-G, 14.4MIN, DG, 617., Ø.Ø6)

(C, 82ANTWR, 873, 82Ø9)

(13-AL-27(N,A)11-NA-24, SIG) THE VALUE OF THE CROSS SECTION WAS TAKEN FROM - SEE J. CSIKAI, PROCEEDINGS OF THE INTERREGIONAL ADVANCED TRAINING COURSE ON APPLICATIONS OF NUCLEAR THEORY TO NUCLEAR DATA CALCULATIONS FOR REACTOR DESIGN, HELD AT TRIESTE, 28 JANUARY - 22 FEBRUARY 198Ø

(11-NA-24-G, 15.Ø2HR, DG) DATA TAKEN BY COMPILER FROM C.M. LEDERER ET AL., TABLE OF ISOTOPES, SEVENTH EDITION, WILEY, NEW YORK, 1978

(ACTIV) BY MEANS OF GAMMA-RAYS DETECTION (GELI) 67.CM\*\*3 IN VOLUME

DATA TAKEN FROM CONF. ANTWERP, 1982, PAG. 873, TAB. 3. (COREL, 3Ø698Ø11) X-RAY SPECTROSCOPY

16

Ø

Ø

1

DATA-ERR

MB

MONIT

MB

3.1ØØØE+Ø1

1.123ØE+Ø2

Ø

Ø

Ø

85Ø826

16

(49-IN-113(N,2N)49-IN-112-M, SIG)

(49-IN-112-M, 2Ø.9MIN, DG, 155., Ø.1266)

(C, 82ANTWR, 873, 82Ø9)

(13-AL-27(N,A)11-NA-24, SIG) THE VALUE OF THE CROSS SECTION WAS TAKEN FROM - SEE J. CSIKAI, PROCEEDINGS OF THE INTERREGIONAL ADVANCED TRAINING COURSE ON APPLICATIONS OF NUCLEAR THEORY TO NUCLEAR DATA CALCULATIONS FOR REACTOR DESIGN, HELD AT TRIESTE, 28 JANUARY - 22 FEBRUARY 198Ø

(11-NA-24-G, 15.Ø2HR, DG) DATA TAKEN BY COMPILER FROM C.M. LEDERER ET AL., TABLE OF ISOTOPES, SEVENTH

*this says calculated, seems to be same measurement.*

*Please check.*

*same*

EDITION, WILEY, NEW YORK, 1978  
 (ACTIV) BY MEANS OF GAMMA-RAYS DETECTION  
 (GELI) 67.CM\*\*3 IN VOLUME  
 DATA TAKEN FROM CONF. ANTWERP, 1982, PAG. 873, TAB. 3.  
 (COREL, 30698011) X-RAY SPECTROSCOPY  
 16 0  
 ENDBIB 0  
 NOCOMMON 3  
 DATA 1  
 DATA-ERR MONIT  
 MB MB  
 1.3300E+03 4.8000E+01 1.1230E+02  
 ENDDATA 3 0  
 ENDSUBENT 24 0  
 SUBENT 30643004 850826  
 BIB 15  
 REACTION ((49-IN-115(N,2N)49-IN-114-M,,SIG)  
 (49-IN-114-M,49.51D,DG,190.29,0.1564)  
 DECAY-DATA (C,82ANTWER,,873.8209)  
 REFERENCE (13-AL-27(N,A)11-NA-24,,SIG) THE VALUE OF THE CROSS  
 MONITOR SECTION WAS TAKEN FROM - SEE J.CSIKAI, PROCEEDINGS OF  
 THE INTERREGIONAL ADVANCED TRAINING COURSE ON  
 APPLICATIONS OF NUCLEAR THEORY TO NUCLEAR DATA  
 CALCULATIONS FOR REACTOR DESIGN, HELD AT TRIESTE,  
 28 JANUARY - 22 FEBRUARY 1980  
 DECAY-MON ((11-NA-24-G,15.02HR,DG) DATA TAKEN BY COMPILER  
 FROM C.M.LEDERER ET AL., TABLE OF ISOTOPES, SEVENTH  
 EDITION, WILEY, NEW YORK, 1978  
 METHOD (ACTIV) BY MEANS OF GAMMA-RAYS DETECTION  
 DETECTOR (GELI) 67.CM\*\*3 IN VOLUME  
 STATUS DATA TAKEN FROM CONF. ANTWERP, 1982, PAG. 873, TAB. 3.  
 ENDBIB 15 0  
 NOCOMMON 0 0  
 DATA 3 1  
 DATA-ERR MONIT  
 MB MB  
 1.5400E+03 5.5000E+01 1.1230E+02  
 ENDDATA 3 0  
 ENDSUBENT 23 0  
 SUBENT 30643005 850826  
 BIB 11  
 REACTION ((49-IN-115(N,2N)49-IN-114-M,,SIG)/  
 (49-IN-113(N,2N)49-IN-112-M,,SIG)) SEE COMMENT  
 METHOD (ACTIV) BY MEANS OF GAMMA-RAYS DETECTION  
 DECAY-DATA (49-IN-114-M,49.51D,DG,190.29,0.1564)  
 (49-IN-112-M,20.9MIN,DG,155.,0.1266)  
 REFERENCE (C,82ANTWER,,873.8209)  
 DETECTOR (P,MOH-4,14,81)  
 COMMENT (GELI) 67.CM\*\*3 IN VOLUME  
 GOOD AGREEMENT WITH THE RESULT OF X-RAYS DETECTION  
 METHOD (SEE SUBENTRY 006)  
 STATUS DATA TAKEN FROM CONF. ANTWERP, 1982, PAG. 873, TAB. 2.  
 ENDBIB 11 0  
 NOCOMMON 0 0  
 DATA 2 1  
 DATA-ERR  
 NO-DIM  
 1.1600E+00 9.0000E-02  
 ENDDATA 3 0  
 ENDSUBENT 19 0  
 SUBENT 30643006 850826  
 BIB 16  
 REACTION ((49-IN-115(N,2N)49-IN-114-M,,SIG)/  
 (49-IN-113(N,2N)49-IN-112-M,,SIG)) SEE COMMENT  
 REFERENCE (C,82ANTWER,,873.8209)

30643 3 14  
 30643 3 15  
 30643 3 16  
 30643 3 17  
 30643 3 18  
 30643 3 19  
 30643 3 20  
 30643 3 21  
 30643 3 22  
 30643 3 23  
 30643 3 24  
 30643 3 25  
 30643 399999  
 30643 4 1  
 30643 4 2  
 30643 4 3  
 30643 4 4  
 30643 4 5  
 30643 4 6  
 30643 4 7  
 30643 4 8  
 30643 4 9  
 30643 4 10  
 30643 4 11  
 30643 4 12  
 30643 4 13  
 30643 4 14  
 30643 4 15  
 30643 4 16  
 30643 4 17  
 30643 4 18  
 30643 4 19  
 30643 4 20  
 30643 4 21  
 30643 4 22  
 30643 4 23  
 30643 4 24  
 30643 499999  
 30643 5 1  
 30643 5 2  
 30643 5 3  
 30643 5 4  
 30643 5 5  
 30643 5 6  
 30643 5 7  
 30643 5 8  
 30643 5 9  
 30643 5 10  
 30643 5 11  
 30643 5 12  
 30643 5 13  
 30643 5 14  
 30643 5 15  
 30643 5 16  
 30643 5 17  
 30643 5 18  
 30643 5 19  
 30643 5 20  
 30643 599999  
 30643 6 1  
 30643 6 2  
 30643 6 3  
 30643 6 4  
 30643 6 5

METHOD	(P, MOH-4, 14, 81)	30643	6
DECAY-DATA	(ACTIV) BY MEANS OF X-RAYS DETECTION	30643	7
	(49-IN-114-M, 49.51D) EMISSION OF X-RAYS FROM INDIUM	30643	8
	WITH INTERNAL CONVERSION COEFFICIENT USED 2.57 AND	30643	9
	CADMIUM X-RAYS WITH BRANCHING RATIO OF ELECTRON CAPTURE	30643	10
	USED 3.3 PER-CENT AND K-ELECTRON CAPTURE RATIO - 0.88	30643	11
	(49-IN-112-M, 20.9MIN) EMISSION OF X-RAYS WITH INTERNAL	30643	12
	CONVERSION COEFFICIENT USED 5.27.	30643	13
DETECTOR	HYPERPURE GE DETECTOR OF 7.MM ACTIVE DEPTH AND	30643	14
	16.MM DIAMETER WITH A 125.MU BE WINDOW	30643	15
COMMENT	GOOD AGREEMENT WITH THE RESULT OF GAMMA-RAYS DETECTION	30643	16
	METHOD (SEE SUBENTRY 005)	30643	17
STATUS	DATA TAKEN FROM CONF. ANTWERP, 1982, PAG. 873, TAB. 2.	30643	18
ENDBIB	16	30643	19
NOCOMMON	0	30643	20
DATA	2	30643	21
DATA	DATA-ERR	30643	22
NO-DIM	NO-DIM	30643	23
1.1600E+00	8.0000E-02	30643	24
ENDDATA	3	30643	25
ENDSUBENT	24	30643	699999
SUBENT	30643007	30643	7
BIB	850826	30643	1
	10	30643	2
REACTION	(49-IN-113(N, 2N)49-IN-112-G/M, , SIG/RAT) SEE COMMENT	30643	3
METHOD	(ACTIV) BY MEANS OF GAMMA-RAYS DETECTION	30643	4
DECAY-DATA	(49-IN-112-G, 14.4MIN, DG, 617., 0.06)	30643	5
	(49-IN-112-M, 20.9MIN, DG, 155., 0.1266)	30643	6
REFERENCE	(C, 82ANTWER, , 873, 8209)	30643	7
	(P, MOH-4, 14, 81)	30643	8
DETECTOR	(GELI) 67.CM**3 IN VOLUME	30643	9
COMMENT	THE REASON OF DISCREPANCY WITH THE RESULT OF X-RAYS	30643	10
	DETECTION METHOD (SEE SUBENTRY 008) IS NOT CLEAR	30643	11
STATUS	DATA TAKEN FROM CONF. ANTWERP, 1982, PAG. 873, TAB. 2.	30643	12
ENDBIB	10	30643	13
NOCOMMON	0	30643	14
DATA	2	30643	15
DATA	DATA-ERR	30643	16
NO-DIM	NO-DIM	30643	17
2.3000E-01	5.0000E-02	30643	18
ENDDATA	3	30643	19
ENDSUBENT	18	30643	799999
SUBENT	30643008	30643	1
BIB	850826	30643	2
	14	30643	3
REACTION	(49-IN-113(N, 2N)49-IN-112-G/M, , SIG/RAT) SEE COMMENT	30643	4
REFERENCE	(C, 82ANTWER, , 873, 8209)	30643	5
	(P, MOH-4, 14, 81)	30643	6
METHOD	(ACTIV) BY MEANS OF X-RAYS DETECTION	30643	7
DECAY-DATA	(49-IN-112-G, 14.4MIN) EMISSION OF X-RAYS FROM CADMIUM	30643	8
	WITH BRANCHING RATIO OF ELECTRON CAPTURE 34. PER-CENT	30643	9
	AND K-ELECTRON CAPTURE RATIO USED 0.87	30643	10
	(49-IN-112-M, 20.9MIN) EMISSION OF X-RAYS FROM INDIUM	30643	11
	WITH INTERNAL CONVERSION COEFFICIENT USED 5.27	30643	12
DETECTOR	HYPERPURE GE DETECTOR OF 7.MM ACTIVE DEPTH AND	30643	13
	16.MM DIAMETER WITH 125.MU BE WINDOW	30643	14
COMMENT	THE REASON OF DISCREPANCY WITH THE RESULT OF G-RAYS	30643	15
	DETECTION METHOD (SEE SUBENTRY 007) IS NOT CLEAR	30643	16
STATUS	DATA TAKEN FROM CONF. ANTWERP, 1982, PAG. 873, TAB. 2.	30643	17
ENDBIB	14	30643	18
NOCOMMON	0	30643	19
DATA	2	30643	20
DATA	DATA-ERR	30643	21
NO-DIM	NO-DIM	30643	22
8.2000E-01	8.0000E-02	30643	23
ENDDATA	3	30643	24

ENDSUBENT	22	0	899999
SUBENT	30643009	850826	9
BIB	5	7	2
REACTION	((49-IN-115(N,INL)49-IN-115-M,,SIG)/		3
	(49-IN-113(N,INL)49-IN-113-M,,SIG))		4
REFERENCE	(P,MOH-4,14,81)		5
METHOD	(ACTIV) BY MEANS OF GAMMA-RAYS DETECTION		6
DECAY-DATA	(49-IN-115-M,4.49HR,DG,336.23,0.4528)		7
	(49-IN-113-M,99.5MIN,DG,391.69,0.6414)		8
	DATA TAKEN FROM P,MOH-4,1981,PAG.14,TAB.2		9
STATUS	7	0	10
ENDBIB	0	0	11
NOCOMMON	0	1	12
DATA	1		13
NO-DIM			14
1.1400E+00			15
ENDDATA	3	0	16
ENDSUBENT	15	0	999999
SUBENT	30643010	850826	1
BIB	5	9	2
REACTION	((49-IN-115(N,INL)49-IN-115-M,,SIG)/		3
	(49-IN-113(N,INL)49-IN-113-M,,SIG))		4
REFERENCE	(P,MOH-4,14,81)		5
METHOD	(ACTIV) BY MEANS OF X-RAYS DETECTION		6
DECAY-DATA	(49-IN-115-M,4.49HR) EMISSION OF X-RAYS FROM INDIUM		7
	WITH INTERNAL CONVERSION COEFFICIENT 0.862		8
	(49-IN-113-M,99.5MIN) EMISSION OF X-RAYS FROM INDIUM		9
	WITH INTERNAL CONVERSION COEFFICIENT 0.448		10
	DATA TAKEN FROM P,MOH-4,1981,PAG.14,TAB.2		11
STATUS	9	0	12
ENDBIB	0	0	13
NOCOMMON	0	1	14
DATA	1		15
NO-DIM			16
1.2100E+00			17
ENDDATA	3	0	18
ENDSUBENT	17	0	1099999
ENDENTRY	11	0	99999999
ENTRY	30698	850823	1
SUBENT	30698001	850823	1
BIB	11	13	2
TITLE	MEASUREMENT OF (N,2N) REACTION CROSS SECTIONS		3
	BY X-RAY SPECTROSCOPY		4
AUTHOR	(A.REGGUG,G.PAIC,M.BERRADA)		5
INSTITUTE	(3MORMOH)		6
REFERENCE	(3YUGRBZ) SECOND AUTHOR		7
MONITOR	(P,MOH-5,14,82)		8
FACILITY	NO INFORMATION		9
INC-SOURCE	(CCW,3MORMOH)		10
METHOD	(D-T)		11
DETECTOR	(ACTIV) X-RAY SPECTROSCOPY		12
ERR-ANALYS	(GE-IN)		13
HISTORY	NO INFORMATION		14
ENDBIB	(850318C) DG.-	0	15
COMMON	13	3	16
EN	1		17
MEV			18
1.4700E+01			19
ENDCOMMON	3	0	20
ENDSUBENT	20	0	199999
SUBENT	30698002	850823	1
BIB	3	7	2
REACTION	1(27-CO-59(N,2N)27-CO-58-M,,SIG)		3



2(27-CO-59(N,2N)27-CO-58-G,,SIG)  
 DECAY-DATA1(27-CO-58-M,9.2HR)  
 2(27-CO-58-G,70.8D)  
 STATUS DATA TAKEN FROM P, MOH-5, 1982, PAG. 14, TAB. 2  
 1(COREL,30805009) GAMMA + X-RAY SPECTROSCOPY  
 2(COREL,30805009) GAMMA + X-RAY SPECTROSCOPY  
 ENDBIB  
 NOCOMMON  
 DATA  
 DATA 1DATA-ERR 1DATA 2DATA-ERR 2  
 MB MB MB  
 4.0200E+02 4.1000E+01 7.2000E+02 5.0000E+01  
 ENDDATA 3  
 ENDSUBENT 15  
 SUBENT 30698003 850823  
 BIB 5  
 REACTION 1(67-HO-165(N,2N)67-HO-164-M,,SIG)  
 2(67-HO-165(N,2N)67-HO-164-G,,SIG)  
 DECAY-DATA1(67-HO-164-M,37.MIN)  
 2(67-HO-164-G,29.MIN)  
 STATUS DATA TAKEN FROM P, MOH-5, 1982, PAG. 14, TAB. 2.  
 ENDBIB  
 NOCOMMON  
 DATA  
 DATA 1DATA-ERR 1DATA 2DATA-ERR 2  
 MB MB MB  
 1.2110E+03 1.8000E+02 8.3100E+02 1.2300E+02  
 ENDDATA 3  
 ENDSUBENT 13  
 SUBENT 30698004 850823  
 BIB 5  
 REACTION 1(79-AU-197(N,2N)79-AU-196-M2,,SIG)  
 2(79-AU-197(N,2N)79-AU-196-G,,SIG)  
 DECAY-DATA1(79-AU-196-M2,9.7HR)  
 2(79-AU-196-G,6.2D)  
 STATUS DATA TAKEN FROM P, MOH-5, 1982, PAG. 14, TAB. 2  
 ENDBIB  
 NOCOMMON  
 DATA  
 DATA 1DATA-ERR 1DATA 2DATA-ERR 2  
 MB MB MB  
 1.5000E+02 2.0000E+01 1.9900E+03 5.0000E+01  
 ENDDATA 3  
 ENDSUBENT 13  
 SUBENT 30698005 850823  
 BIB 5  
 REACTION 1(63-EU-153(N,2N)63-EU-152-M2,,SIG)  
 2(63-EU-153(N,2N)63-EU-152-M1,,SIG)  
 DECAY-DATA1(63-EU-152-M2,1.6HR)  
 2(63-EU-152-M1,9.3HR)  
 STATUS DATA TAKEN FROM P, MOH-5, 1982, PAG. 14, TAB. 2  
 ENDBIB  
 NOCOMMON  
 DATA  
 DATA 1DATA-ERR 1DATA 2DATA-ERR 2  
 MB MB MB  
 7.2000E+01 6.0000E+00 4.3300E+02 3.9000E+01  
 ENDDATA 3  
 ENDSUBENT 13  
 SUBENT 30698006 850823  
 BIB 5  
 REACTION 1(37-RB-85(N,2N)37-RB-84-M,,SIG)  
 2(37-RB-85(N,2N)37-RB-84-G,,SIG)  
 DECAY-DATA1(37-RB-84-M,20.5MIN)

30698 2 4  
 30698 2 5  
 30698 2 6  
 30698 2 7  
 30698 2 8  
 30698 2 9  
 30698 2 10  
 30698 2 11  
 30698 2 12  
 30698 2 13  
 30698 2 14  
 30698 2 15  
 30698 2 16  
 30698 299999  
 30698 3 1  
 30698 3 2  
 30698 3 3  
 30698 3 4  
 30698 3 5  
 30698 3 6  
 30698 3 7  
 30698 3 8  
 30698 3 9  
 30698 3 10  
 30698 3 11  
 30698 3 12  
 30698 3 13  
 30698 3 14  
 30698 399999  
 30698 4 1  
 30698 4 2  
 30698 4 3  
 30698 4 4  
 30698 4 5  
 30698 4 6  
 30698 4 7  
 30698 4 8  
 30698 4 9  
 30698 4 10  
 30698 4 11  
 30698 4 12  
 30698 4 13  
 30698 4 14  
 30698 499999  
 30698 5 1  
 30698 5 2  
 30698 5 3  
 30698 5 4  
 30698 5 5  
 30698 5 6  
 30698 5 7  
 30698 5 8  
 30698 5 9  
 30698 5 10  
 30698 5 11  
 30698 5 12  
 30698 5 13  
 30698 5 14  
 30698 599999  
 30698 6 1  
 30698 6 2  
 30698 6 3  
 30698 6 4  
 30698 6 5



DATA	1					10
DATA	1	DATA-ERR	1	DATA	2	DATA-ERR
MB		MB		MB		11
7.5000E+02	5.0000E+01	7.7200E+02	8.0000E+01			12
ENDDATA						13
ENDSUBENT	3					14
SUBENT	13					1099999
BIB	30698011	850823	7			1
REACTION	1(49-IN-113(N,2N)49-IN-112-M,,SIG)					2
DECAY-DATA	2(49-IN-113(N,2N)49-IN-112-M,,SIG)					3
STATUS	1(49-IN-112-M,21.MIN)					4
ENDBIB						5
NOCOMMON						6
DATA	1(49-IN-112-G,14.4MIN)					7
DATA	DATA TAKEN FROM P, MOH-5, 1982, PAG. 14, TAB. 2					
MB	1(COREL,30643003) GAMMA-RAY SPECTROSCOPY					8
1.3170E+03	2.0000E+02	3.1600E+02	4.0000E+01			9
ENDDATA						10
ENDSUBENT	3					11
SUBENT	15					12
BIB	30698012	850823	5			13
REACTION	1(47-AG-107(N,2N)47-AG-106-M,,SIG)					14
DECAY-DATA	2(47-AG-107(N,2N)47-AG-106-M,,SIG)					15
STATUS	1(47-AG-106-M,8.5D)					16
ENDBIB						1199999
NOCOMMON						1
DATA	2(47-AG-106-G,24.MIN)					2
DATA	DATA TAKEN FROM P, MOH-5, 1982, PAG. 14, TAB. 2					3
MB	1(47-AG-106-M,8.5D)					4
6.0000E+02	8.0000E+01	8.7000E+02	1.0000E+02			5
ENDDATA						6
ENDSUBENT	3					7
SUBENT	13					8
BIB	30698013	850823	5			9
REACTION	1(51-SB-121(N,2N)51-SB-120-M,,SIG)					10
DECAY-DATA	2(51-SB-121(N,2N)51-SB-120-M,,SIG)					11
STATUS	1(51-SB-120-G,16.MIN)					12
ENDBIB						13
NOCOMMON						14
DATA	DATA TAKEN FROM P, MOH-5, 1982, PAG. 14, TAB. 2					1199999
DATA	1(51-SB-120-M,5.8D)					1
MB	2(51-SB-120-G,16.MIN)					2
4.2700E+02	2.0000E+01	1.0800E+03	8.0000E+01			3
ENDDATA						4
ENDSUBENT	3					5
ENDENTRY	14					6
ENDTRANS	2					7

30698 10 10  
30698 10 11  
30698 10 12  
30698 10 13  
30698 10 14  
30698 1099999  
30698 11 1  
30698 11 2  
30698 11 3  
30698 11 4  
30698 11 5  
30698 11 6  
30698 11 7  
30698 11 8  
30698 11 9  
30698 11 10  
30698 11 11  
30698 11 12  
30698 11 13  
30698 11 14  
30698 11 15  
30698 11 16  
30698 1199999  
30698 12 1  
30698 12 2  
30698 12 3  
30698 12 4  
30698 12 5  
30698 12 6  
30698 12 7  
30698 12 8  
30698 12 9  
30698 12 10  
30698 12 11  
30698 12 12  
30698 12 13  
30698 12 14  
30698 1299999  
30698 13 1  
30698 13 2  
30698 13 3  
30698 13 4  
30698 13 5  
30698 13 6  
30698 13 7  
30698 13 8  
30698 13 9  
30698 13 10  
30698 13 11  
30698 13 12  
30698 13 13  
30698 13 14  
30698 1399999  
306989999999999  
Z999999999999999

+TRANS	0	860610	0	0
ENTRY	30031	850219	30031	1
SUBENT	30031001	850219	30031	1
BIB	14	25	30031	2
TITLE	RADIATIVE CAPTURE CROSS-SECTIONS FOR 3 MEV NEUTRONS			
AUTHOR	(G.PETO,Z.MILLIGY,I.HUNYADI)			
INSTITUTE	(3HUNDEB)			
REFERENCE	(J.JNE,21,797,6710) DESCRIPTION EXPT, GRAPHS,DATA TABLE			
INC-SOURCE	(D-D) BRASS SELF-TARGET, WATER COOLED, DIRECT DEUT-BEAM			
	BEAM SPOT WAS 5 MM, TARGET-SAMPLE DISTANCE 10-15 MM,			
	SAMPLES WERE PLACED AT 0 DEG.			
SAMPLE	SOLID- SAMPLES WERE COVERED BY THIN POLYETHYLENE FOILS			
	AND WERE 18MM DIAMETER			
METHOD	(ACTIV) ACTIVATION			
PART-DET	(B-DG) BETA AND GAMMA COUNTING			
DETECTOR	(GEMUC) MICA END-WINDOW GEIGER MULLER COUNTER			
	NEUTRON FLUX MONITORED WITH ANTHRACENE SCINTILLATOR AS			
	WELL AS BF3 LONG COUNTER			
CORRECTION	INTENSITIES OF THERMAL AND EPITHERMAL NEUTRONS WERE			
	DETERMINED AND ALSO FLUX DUE TO DEUTERONS MISSING THE			
	TARGET, DEVIATIONS WERE STATISTICAL IN ORIGIN			
ERR-ANALYS	ERRORS GIVEN INCLUDE THOSE DUE TO STANDARDS REACTION			
	UNCERTAINTY, BETA COUNTING ERROR AND STATISTICS			
ANALYSIS	FOR THE DECAY SCHEMES THE DATA WERE TAKEN FROM			
	NUCLEAR DATA SHEETS(1961), THE STANDARDS CROSS-SECTIONS			
	USED ARE A BEST FIT TO MEASURED AND LITERATURE VALUES			
STATUS	DATA TAKEN FROM J.NUCL.ENERGY 21, 797, TABLE 1			
	(APRVD) APPROVED BY PETO,LETTER (5/9/72)			
HISTORY	(700813C) PREVIOUSLY DASTAR-P0003			
ENDBIB	25	0	30031	1
COMMON	2	3	30031	1
EN			30031	1
MEV			30031	1
	3.0000E+00	2.0000E-01	30031	1
ENDCOMMON	3	0	30031	1
ENDSUBENT	32	0	30031	1
SUBENT	30031014	840503	30031	1
BIB	2	5	30031	1
REACTION	(49-IN-115(N,G)49-IN-116-M,SIG)			
MONITOR	(15-P-31(N,P)14-SI-31,,SIG)			
	= STAND 1			
	(13-AL-27(N,P)12-MG-27,,SIG)			
	= STAND 2			
ENDBIB	5	0	30031	1
NOCOMMON	0	0	30031	1
DATA	4	1	30031	1
DATA			30031	1
MB	DATA-ERR	MONIT1	MONIT2	
	MB	MB	MB	
	6.8000E+01	7.4000E+01	2.5000E+00	
ENDDATA	3	0	30031	1
ENDSUBENT	13	0	30031	1
ENDENTRY	2	1	30031	1
ENTRY	30053	850219	30031	1
SUBENT	30063001	850219	30031	1
BIB	14	38	30031	1
TITLE	NEUTRON ACTIVATION CROSS-SECTIONS AT 24 KEV			
AUTHOR	(A.K.CHAUBEY, M.L.SEHGAL)			
INSTITUTE	(3INDMUA)			
EXP-YEAR	(64)			
REFERENCE	(J.NP,66,267,6505)			
SAMPLE	POWDER,PURITY BETTER THAN 99.9PERCENT,SAMPLE SANDWICHED			
	BETWEEN 2 CELLOTAPES, PERSPEX RING FOR FIXED GEOMETRY			
	(53-I-127(N,G)53-I-128,,SIG)			
MONITOR	I-127(N,GAMMA)CROSS-SECTION =0.82 BARNS			

FROM R.L. MACKLIN ET AL., PHYS. REV. 107, GE 504 (1957)  
 INC-SOURCE ANTIMONY-BERYLLIUM, 1.7CM DIAM.\*3.3CM HEIGHT,  
 FLUX APPROXIMATELY 10E+7 NEUTRONS/SEC  
 METHOD (ACTIV) BETA ACTIVITY MEASURED  
 PART-DET (B-) BETA PARTICLES DETECTED  
 DETECTOR (GEMUC) END WINDOW BETA COUNTER  
 ERR-ANALYS (DATA-ERR) GIVEN ERROR CONSISTS OF  
 1.) 1 PERCENT IN ESTIMATION OF TOTAL NUMBER OF TARGET  
 NUCLEI.  
 2.) 2 PERCENT IN MEASUREMENT OF SAMPLE-SOURCE GEOMETRY  
 EFFECT WHICH WILL DEPEND UPON REPRODUCIBILITY OF  
 THE GEOMETRY.  
 3.) IRRADIATION TIME MEASURED WITH AN ACCURACY OF  
 BETTER THAN 1 PERCENT. IN MEASUREMENT OF THE CROSS-  
 4.) ABOUT 2 PERCENT ERROR. IN MEASUREMENT OF THE GAMMA-  
 SECTIONS ESTIMATED TO BE DUE TO THE GAMMA-RAYS  
 DETECTED BY BETA-COUNTER.  
 5.) STATISTICAL ERROR VARIES FROM ONE CASE TO ANOTHER.  
 CORRECTION ABSENCE OF THERMAL NEUTRONS DETERMINED, INFLUENCE OF  
 SCATTERED NEUTRONS OF LOWER THAN 24. KEV ENERGY  
 NEGLIGIBLE DUE TO GEOMETRY, I.E. LARGE ROOM, REMOTE  
 LOCATION OF NEUTRON SOURCE FROM THE FLOOR (=1.3 M)  
 AND NO SHIELDING MATERIAL AROUND THE SOURCE.  
 HISTORY (691124C) DATA COMPILED FROM NP 66.267-272 (1964)  
 (691203A) PROOF COPY SENT TO AUTHOR  
 (701127T) DATA CONVERTED FROM DASTAR-01011  
 (760914U) SOME ISO-QUANTS HAVE BEEN CHANGED WITH  
 RESPECT TO THE MODIFIERS. HALF-LIVES ADDED  
 IN 'COMMON'. CHANGES IN COMMENTS.

INC-SOURCE	30063	1	12
METHOD	30063	1	13
PART-DET	30063	1	14
DETECTOR	30063	1	15
ERR-ANALYS	30063	1	16
	30063	1	17
	30063	1	18
	30063	1	19
	30063	1	20
	30063	1	21
	30063	1	22
	30063	1	23
	30063	1	24
	30063	1	25
	30063	1	26
	30063	1	27
	30063	1	28
	30063	1	29
	30063	1	30
	30063	1	31
	30063	1	32
	30063	1	33
	30063	1	34
	30063	1	35
	30063	1	36
	30063	1	37
	30063	1	38
	30063	1	39
	30063	1	40
	30063	1	41
	30063	1	42
	30063	1	43
	30063	1	44
	30063	1	45
	30063	1	46
	30063	1	199999
	30063	5	1
	30063	5	2
	30063	5	3
	30063	5	4
	30063	5	5
	30063	5	6
	30063	5	7
	30063	5	8
	30063	5	9
	30063	5	10
	30063	5	11
	30063	5	12
	30063	5	13
	30063	5	14
	30063	5	15
	30063	5	16
	30063	5	17
	30063	5	18
	30063	5	19
	30063	5	20
	30063	5	21
	30063	5	22
	30063	5	23
	30063	5	599999
	30063	5	999999
	30159	0	1
	30159	1	1
	30159	1	2

ENDBIB 38  
 COMMON 1  
 EN 0  
 KEV 0  
 2.4000E+01  
 ENDCOMMON 3  
 ENDSUBENT 45  
 SUBENT 30063005 840503  
 BIB 14  
 REACTION (49-IN-115(N,G)49-IN-116-M,SIG)  
 HALF-LIFE (HL1,49-IN-116-M1) FIRST METASTABLE STATE (54MIN)  
 (HL2,49-IN-116-M2)SECOND METASTABLE STATE (2.5SEC)  
 SPIN CUT OFF PARAMETER CALCULATED IN NUCL.PHYS.A117,545  
 1968. ENTRY 30087.008  
 THE SECOND METASTABLE STATE (H-LIFE = 2.5 SEC) DECAYS  
 100 PERCENT DIRECTLY TO THE FIRST (H-LIFE = 54 MIN) BY  
 ISOMERIC TRANSITION.  
 (B-DG)  
 (NAICR) NA-I(TL) CRYSTAL FOR GAMMAS, IN ADDITION TO THE  
 END WINDOW BETA COUNTER.  
 THE PARTIAL CAPTURE CROSS SECTION WAS DETERMINED BY  
 BOTH BETA COUNTING AND GAMMA COUNTING WITH IDENTICAL  
 RESULTS.

ENDBIB	0	14	0
NOCOMMON	0	0	0
DATA	0	4	1
DATA	HL1	HL1	HL2
MB	MIN	MIN	SEC
DATA-ERR	MB	MB	MB
5.8000E+02	4.0000E+01	5.4000E+01	2.5000E+00
ENDDATA	3	0	0
ENDSUBENT	22	0	0
ENDENTRY	2	1	1
ENTRY	30159	850305	850305
SUBENT	30159001	850305	31
BIB	13	31	13

MEASUREMENT OF HIGH ENERGY GAMMA-RAY SPECTRA IN A STRONG NEUTRON FLUX (J.S.BRZOSKO,E.GIERLIK,A.SOLTAN JR.,Z.SZEFLINSKI,Z.WILHELM) (3POLWA) (J,APP/B,2,489,71) FULL INFORMATION (P,INR-1318,29,7104)PARTIAL,TOTAL SIGMAS CFD THEORY (P,INDC(SEC)-18,120,7108) IDENTICAL TO INR-1318 (R,INR-1224,7009)EXPERIMENTAL SET-UP DESCRIBED.FULL PPR30159 (P,INR-1197,26,7005)SMALL REPT.SAME INFRMT AS INR-122430159 (J,CJP,47,2849,6912) THEO. CALCULATION OF (N,G) SIGMA (DIAMETER= 18MM, THICKNESS= 12MM, SHIELDED AGAINST THERMAL NEUTRONS BY A CD FOIL(0.5MM THICK) (VDG) VAN DE GRAAFF ACCELERATOR (P-T) T(P,N)HE-3 REACTION. THE TRITIUM TARGETS CONSISTED OF A CU-BACKING ON WHICH 15 MICRONS OF AG AND 30159 0.45 MG/CM2 OF TI WITH 0.8 CI ABSORBED T WERE DEPOSITED 30159 DIRECT DETECTION OF GAMMAS. THE IMMEDIATE BACKGROUND IS REDUCED BY THE SHIELDING SYSTEM OF THE CRYSTAL WHEREAS THE DELAYED BACKGROUND IS LOWERED 30159 OWING TO THE PULSED PROTON BEAM 30159 THE SMALL DISTANCE OF THE SAMPLE FROM THE TRITIUM TARGET (3MM) WAS THE CAUSE OF CONSIDERABLE NEUTRON ENERGY SPREADS. 30159 (G) GAMMAS 30159 (NAICR) THE NAI(TL) CRYSTAL WAS PLACED IN A LEAD CYLINDER ENCLOSED IN A PARAFFIN LAYER CONTAINING BORON CARBIDE. ON THE TARGET SIDE,ONLY PARAFFIN WITH LITHIUM HYDRIDE WAS USED. 30159 NO INFORMATION AVAILABLE (720410C) CA. 30159 ENDBIB 31 0 30159 1 33 30159 1 34 30159 1 35 30159 1 19999 30159 2 1 30159 2 2 30159 2 3 30159 2 4 30159 2 5 30159 2 6 30159 2 7 30159 2 8 30159 2 9 30159 2 10 30159 2 11 30159 299999 30159 299999 30264 0 30264 1 1 30264 1 2 30264 1 3 30264 1 4 30264 1 5 30264 1 6 30264 1 7 30264 1 8 30264 1 9 30264 1 10 30264 1 11 30264 1 12 30264 1 13 30264 1 14 30264 1 15 30264 1 16

TITLE MEASUREMENT OF HIGH ENERGY GAMMA-RAY SPECTRA IN A STRONG NEUTRON FLUX (J.S.BRZOSKO,E.GIERLIK,A.SOLTAN JR.,Z.SZEFLINSKI,Z.WILHELM) (3POLWA) (J,APP/B,2,489,71) FULL INFORMATION (P,INR-1318,29,7104)PARTIAL,TOTAL SIGMAS CFD THEORY (P,INDC(SEC)-18,120,7108) IDENTICAL TO INR-1318 (R,INR-1224,7009)EXPERIMENTAL SET-UP DESCRIBED.FULL PPR30159 (P,INR-1197,26,7005)SMALL REPT.SAME INFRMT AS INR-122430159 (J,CJP,47,2849,6912) THEO. CALCULATION OF (N,G) SIGMA (DIAMETER= 18MM, THICKNESS= 12MM, SHIELDED AGAINST THERMAL NEUTRONS BY A CD FOIL(0.5MM THICK) (VDG) VAN DE GRAAFF ACCELERATOR (P-T) T(P,N)HE-3 REACTION. THE TRITIUM TARGETS CONSISTED OF A CU-BACKING ON WHICH 15 MICRONS OF AG AND 30159 0.45 MG/CM2 OF TI WITH 0.8 CI ABSORBED T WERE DEPOSITED 30159 DIRECT DETECTION OF GAMMAS. THE IMMEDIATE BACKGROUND IS REDUCED BY THE SHIELDING SYSTEM OF THE CRYSTAL WHEREAS THE DELAYED BACKGROUND IS LOWERED 30159 OWING TO THE PULSED PROTON BEAM 30159 THE SMALL DISTANCE OF THE SAMPLE FROM THE TRITIUM TARGET (3MM) WAS THE CAUSE OF CONSIDERABLE NEUTRON ENERGY SPREADS. 30159 (G) GAMMAS 30159 (NAICR) THE NAI(TL) CRYSTAL WAS PLACED IN A LEAD CYLINDER ENCLOSED IN A PARAFFIN LAYER CONTAINING BORON CARBIDE. ON THE TARGET SIDE,ONLY PARAFFIN WITH LITHIUM HYDRIDE WAS USED. 30159 NO INFORMATION AVAILABLE (720410C) CA. 30159 ENDBIB 31 0 30159 1 33 30159 1 34 30159 1 35 30159 1 19999 30159 2 1 30159 2 2 30159 2 3 30159 2 4 30159 2 5 30159 2 6 30159 2 7 30159 2 8 30159 2 9 30159 2 10 30159 2 11 30159 299999 30159 299999 30264 0 30264 1 1 30264 1 2 30264 1 3 30264 1 4 30264 1 5 30264 1 6 30264 1 7 30264 1 8 30264 1 9 30264 1 10 30264 1 11 30264 1 12 30264 1 13 30264 1 14 30264 1 15 30264 1 16

INC-SPECT PART-DET

ERR-ANALYS NO INFORMATION AVAILABLE (720410C) CA. ENDBIB 31 0 ENDSUBENT 34 0 SUBENT 30159002 2 840503 2 BIB REACTION (49-IN-115(N,G)49-IN-116,,SIG) STATUS DATA TAKEN FROM TABLE IN INR-1318 ENDBIB 2 0 NOCOMMON 2 0 DATA 2 0 DATA 2 1 EN MEV 2.5000E+02 4.0000E-01 ENDDATA 3 0 ENDSUBENT 10 0 ENTRY 2 840511 30264 840511 30264001 14 14 BIB INVESTIGATION OF THE (N,2N) REACTIONS AT 14.6 MEV FOR 42 NUCLIDES (J.ARAMINOWICZ,J.DRESLER) (3POLLOU) (72) (P,INR-1454,14,7305) BRIEF REPORT, TABLE, GRAPH (29-CU-63(N,2N)29-CU-62,,SIG) CASCADE ELECTROSTATIC ACCELERATOR (D-T) T(D,N)ALPHA REACTION. THE NEUTRON FLUX WAS MONITORED BY A SEMICONDUCTOR SILICON DETECTOR WHICH COUNTED THE ALPHA PARTICLES. DURING THE ACTIVATION THE NEUTRON FLUX WAS KEPT CONSTANT WITHIN 2 PER-CENT. (ACTIV) ACTIVATION METHOD (DG) DECAY-GAMMAS. THE REACTION PRODUCTS WERE

INC-SPECT PART-DET

ERR-ANALYS NO INFORMATION AVAILABLE (720410C) CA. ENDBIB 31 0 ENDSUBENT 34 0 SUBENT 30159002 2 840503 2 BIB REACTION (49-IN-115(N,G)49-IN-116,,SIG) STATUS DATA TAKEN FROM TABLE IN INR-1318 ENDBIB 2 0 NOCOMMON 2 0 DATA 2 0 DATA 2 1 EN MEV 2.5000E+02 4.0000E-01 ENDDATA 3 0 ENDSUBENT 10 0 ENTRY 2 840511 30264 840511 30264001 14 14 BIB INVESTIGATION OF THE (N,2N) REACTIONS AT 14.6 MEV FOR 42 NUCLIDES (J.ARAMINOWICZ,J.DRESLER) (3POLLOU) (72) (P,INR-1454,14,7305) BRIEF REPORT, TABLE, GRAPH (29-CU-63(N,2N)29-CU-62,,SIG) CASCADE ELECTROSTATIC ACCELERATOR (D-T) T(D,N)ALPHA REACTION. THE NEUTRON FLUX WAS MONITORED BY A SEMICONDUCTOR SILICON DETECTOR WHICH COUNTED THE ALPHA PARTICLES. DURING THE ACTIVATION THE NEUTRON FLUX WAS KEPT CONSTANT WITHIN 2 PER-CENT. (ACTIV) ACTIVATION METHOD (DG) DECAY-GAMMAS. THE REACTION PRODUCTS WERE

INC-SPECT PART-DET

ERR-ANALYS NO INFORMATION AVAILABLE (720410C) CA. ENDBIB 31 0 ENDSUBENT 34 0 SUBENT 30159002 2 840503 2 BIB REACTION (49-IN-115(N,G)49-IN-116,,SIG) STATUS DATA TAKEN FROM TABLE IN INR-1318 ENDBIB 2 0 NOCOMMON 2 0 DATA 2 0 DATA 2 1 EN MEV 2.5000E+02 4.0000E-01 ENDDATA 3 0 ENDSUBENT 10 0 ENTRY 2 840511 30264 840511 30264001 14 14 BIB INVESTIGATION OF THE (N,2N) REACTIONS AT 14.6 MEV FOR 42 NUCLIDES (J.ARAMINOWICZ,J.DRESLER) (3POLLOU) (72) (P,INR-1454,14,7305) BRIEF REPORT, TABLE, GRAPH (29-CU-63(N,2N)29-CU-62,,SIG) CASCADE ELECTROSTATIC ACCELERATOR (D-T) T(D,N)ALPHA REACTION. THE NEUTRON FLUX WAS MONITORED BY A SEMICONDUCTOR SILICON DETECTOR WHICH COUNTED THE ALPHA PARTICLES. DURING THE ACTIVATION THE NEUTRON FLUX WAS KEPT CONSTANT WITHIN 2 PER-CENT. (ACTIV) ACTIVATION METHOD (DG) DECAY-GAMMAS. THE REACTION PRODUCTS WERE

IDENTIFIED BY THEIR GAMMA TRANSITIONS AND THE LEAST  
 SQUARE ANALYSIS OF THE DECAY CURVES.  
 (NAICR) NAI(TL) SCINTILLATOR ASSOCIATED WITH A 128  
 CHANNEL ANALYSER.  
 ERR-ANALYS (DATA-ERR) STATISTICAL ERRORS ONLY  
 STATUS (DATA TAKEN FROM INR-1464(1973)14.  
 (APRVD) APPROVED BY ARAMINOWICZ (12 MAY 1974)  
 HISTORY (731115C) CA.  
 (740613U) CA. -SPELLING ERROR IN SUBENT 1 CORRECTED  
 -STATUS 'APRVD' ADDED

DETECTOR 30264 1 17  
 30264 1 18  
 30264 1 19  
 30264 1 20  
 30264 1 21  
 30264 1 22  
 30264 1 23  
 30264 1 24  
 30264 1 25  
 30264 1 26  
 30264 1 27  
 30264 1 28  
 30264 1 29  
 30264 1 30  
 30264 1 31  
 30264 1 32  
 30264 199999  
 30264 33 1  
 30264 33 2  
 30264 33 3  
 30264 33 4  
 30264 33 5  
 30264 33 6  
 30264 33 7  
 30264 33 8  
 30264 33 9  
 30264 33 10  
 30264 33 11  
 30264 33 12  
 30264 33 13  
 30264 33 14  
 30264 33 15  
 30264 3399999  
 30264 999999999  
 30285 0 1  
 30285 1 1  
 30285 1 2  
 30285 1 3  
 30285 1 4  
 30285 1 5  
 30285 1 6  
 30285 1 7  
 30285 1 8  
 30285 1 9  
 30285 1 10  
 30285 1 11  
 30285 1 12  
 30285 1 13  
 30285 1 14  
 30285 1 15  
 30285 1 16  
 30285 1 17  
 30285 1 18  
 30285 1 19  
 30285 1 20  
 30285 1 21  
 30285 1 22  
 30285 1 23  
 30285 1 24  
 30285 1 25  
 30285 1 26  
 30285 1 27  
 30285 1 28  
 30285 199999

ENDBIB 24  
 COMMON 2  
 EN 3  
 MEV  
 1.4600E+01 5.3800E+02  
 ENDCOMMON 3  
 ENDSUBENT 31  
 SUBENT 30264033 840511  
 BIB 2  
 REACTION (49-IN-113(N,2N)49-IN-112-G, SIG)  
 HALF-LIFE (HL1,49-IN-112-G) MEASURED BY AUTHOR  
 ENDBIB 2  
 COMMON 2  
 HL1  
 MIN HLI-ERR  
 1.3490E+01 1.4600E+00  
 ENDCOMMON 3  
 DATA 2  
 DATA DATA-ERR  
 MB  
 1.3830E+03 1.0000E+02  
 ENDDATA 3  
 ENDSUBENT 14  
 ENENTRY 2  
 ENTRY 30285 840517  
 SUBENT 30285001 840517  
 BIB 11  
 TITLE FAST NEUTRON EXCITATION OF ISOMERIC ACTIVITIES IN  
 IN-112, IN-113 AND IN-114 ISOTOPES  
 AUTHOR (T.KOZLOWSKI, Z.MOROZ, E.RURARZ, J.WOJTKOWSKA)  
 INSTITUTE (3POLIBJ)  
 EXP-YEAR (68)  
 REFERENCE (J,APP,33,409,6803) FULL PAPER  
 (R,ZFK-130,233,6712) DATA GIVEN  
 (29-CU-63(N,2N)29-CU-62,,SIG)  
 MONITOR NUMERICAL VALUE NOT GIVEN.  
 OTHER NEUTRON MONITORS WERE =  
 .A SEMICONDUCTOR DETECTOR FOR THE ALPHA PARTICLES FROM  
 THE (D,N)ALPHA REACTION,  
 .A LONG COUNTER CALIBRATED WITH A RA-BE NEUTRON  
 SOURCE.  
 INC-SOURCE (D-T) T(D,N) ALPHA REACTION  
 METHOD (ACTIV) ACTIVATION METHOD  
 (ASSOP) ASSOCIATED PARTICLE METHOD  
 (NAICR) 1.5''\*1'' NAI(TL) CRYSTAL  
 STATUS DATA TAKEN FROM ACTA PHYS.POLONICA 33(1968)409.  
 HISTORY (741216C) CA.  
 ENDBIB 20  
 COMMON 1  
 EN 3  
 MEV  
 1.4700E+01  
 ENDCOMMON 3  
 ENDSUBENT 27

*more info probably with part.*

*Some figures probably include some from W.S.*

SUBENT 30285004 840517 1 1  
 BIB 4 30285 4  
 REACTION (49-IN-113(N,2N)49-IN-112-G.,SIG) 2 2  
 SAMPLE 0.124 G ENRICHED INDIUM SAMPLE (88 PERCENT OF IN-113) 3 3  
 HALF-LIFE (HLI,49-IN-112-G) GIVEN BY AUTHOR. 4 4  
 PART-DET (DG) 521 KEV LINE OF CD-112. 5 5  
 (B-) BETA- 6 6  
 (AR) ANNIHILATION RADIATION. 7 7  
 ENDBIB 8 8  
 COMMON 9 9  
 HLI-ERR 10 10  
 MIN 11 11  
 ENDCOMMON 1.4400E+01 2.0000E-01 12 12  
 DATA 3 13  
 DATA-ERR 2 14  
 MB 15  
 7.0300E+02 1.0200E+02 16  
 ENDDATA 3 17  
 ENDSUBENT 18  
 ENTRY 2 19  
 ENTRY 840530 20  
 SUBENT 30310001 840530 21  
 BIB 11 22  
 TITLE RADIATIVE CAPTURE CROSS SECTIONS FOR 14.7 MEV NEUTRONS 23  
 AUTHOR (G.PETO,J.CSIKAI,V.LONG,S.MUKHERJEE,J.BANHALMI, 24  
 Z.MILIGY) 25  
 INSTITUTE (3HUNKOS) 26  
 REFERENCE (J.ASL,25,185,75) TABLE 1. 27  
 FACILITY (C.74SMOLEN,7409) 28  
 INC-SOURCE (CCW) 180 KV CASCADE GENERATOR AT KOSSUTH UNIV. 29  
 METHOD (D-T) 14.7 MEV NEUTRONS. 30  
 (ACTIV) ACTIVATION METHOD, MODIFIED TO AVOID THE 31  
 CONTRIBUTION OF THE SCATTERED NEUTRONS TO THE 32  
 ACTIVATION CROSS-SECTION. AND FOR THIS PURPOSE AND 33  
 TO AVOID THE ERRORS FROM FLUX-NONHOMOGENEITY, INNER 34  
 MONITOR REACTIONS WERE USED. 35  
 DETECTOR (GELI) 40 CM3 GE(LI) SPECTROMETER. 36  
 PART-DET (DG) DECAY GAMMAS, 1293 KEV FOR IN-116M AND 411.8 KEV 37  
 FOR AU-198. 38  
 COMMENT RESULTS OBTAINED ARE A FACTOR OF 2 HIGHER 39  
 THAN PROMPT GAMMA RESULTS. 40  
 (751029C) KO. 41  
 EN +EN-RSL -EN-RSL 42  
 MEV MEV 43  
 EN 19 0 44  
 1.4700E+01 3.0000E-01 6.0000E-01 45  
 ENDCOMMON 3 0 46  
 ENDSUBENT 26 0 47  
 SUBENT 30310002 840530 48  
 BIB 19 49  
 REACTION (49-IN-115(N,G)49-IN-116-M.,SIG) 50  
 MONITOR (49-IN-115(N,INL)49-IN-115-M.,SIG) 51  
 = 63 MB +- 3 PERC., MENLOVE ET AL., 52  
 PHY.REV.163(1967)1308. T(1/2)=4.50 +- 0.02HR, 53  
 E(GAMMA)=336 KEV, I(GAMMA)=(47+-2) PERCENT. 54  
 (13-AL-27(N,P)12-MG-27.,SIG) 55  
 = 73 +- 9 MB AND 56  
 (13-AL-27(N,A)11-NA-24.,SIG) 57  
 = 114 +- 10 MB, BOEDY, INDC(HUN)-10,1973. 58  
 HALF-LIFE (HL,49-IN-116-M1) 59  
 SAMPLE INDIUM FOILS, 21 MG/CM2. 60  
 CORRECTION CAREFUL CONSIDERATION FOR THE CONTRIBUTION OF SCATTERED 61



NEUTRONS. 2 15  
 ZERO-THICKNESS CORRECTION FACTOR 1.0 +- 7 PERCENT, 30310 2  
 ZERO-COPPER-BACKING CORRECTION FACTOR 0.77 +- 2 PERC. 30310 2  
 ROOM-SCATTERED NEUTRON CORRECTION F. 0.87 +- 4 PERC. 30310 2  
 STATISTICAL ERROR +- 5 PERCENT, 30310 2  
 ERROR FROM GAMMA-SPECTROMETRY +- 3 PERCENT, 30310 2  
 ERR-ANALYS (DATA-ERR) TOTAL ERROR, SEE 'CORRECTION'. 30310 2  
 ENDBIB 19 0 30310 2  
 NOCOMMON 0 0 30310 2  
 DATA 6 1 30310 2  
 DATA MB MONIT MONIT-ERR HL HL-ERR  
 PER-CENT MIN MIN  
 2.1400E+00 2.2000E+01 6.3000E+01 3.0000E+00 5.4000E+01 2.0000E+00 30310 2  
 ENDDATA 3 0 30310 2  
 ENDSUBENT 27 0 30310 2  
 ENDENTRY 2 1 30310 2  
 ENTRY 30322 850314 30310 299999  
 SUBENT 30322001 840530 30322 0  
 BIB 18 58 30322 1  
 TITLE CROSS-SECTIONS OF 14 MEV NEUTRON REACTIONS PRODUCING SHORT-LIVED NUCLIDES. 30322 1  
 AUTHOR (J.JANCZYSZYN, L.GORSKI) 30322 1  
 INSTITUTE (3POLITJ) 30322 1  
 REFERENCE (J,JRC,14,201,73) 30322 1  
 (J,CA,17,(3),703,72)EXP.DETAIL. 30322 1  
 (J,RL,8,363,7112) BRIEF DESCRIPTION OF EXPERIMENT. 30322 1  
 (29-CU-63(N,2N)29-CU-62,SIG) 30322 1  
 NEUTRON FLUX WAS DETERMINED ON THE BASIS OF THE 'TEXAS CONVENTION', R.L.HEATH, PROC.INTERN.CONF.MODERN TRENDS IN ACTIVATION ANALYSIS, COLLEGE STATION, TEXAS, 1965, P.389. 30322 1  
 \*SPECIFICATION OF TEXAS CONVENTION, 30322 1  
 THE EFFECTIVE FLUXES FOR SAMPLE ACTIVATIONS ARE TO BE MEASURED BY EXPOSING HIGH-PURITY COPPER DISKS OF 0.25 MM THICKNESS AND 1-CM AND/OR 2.5-CM DIA FOR 1 MIN TO THE N-FLUX TO BE MEASURED. ----AND THE DISINTEGRATION RATE OF CU-62 ACTIVITY IS DETERMINED. THEN THE FLUX IS GIVEN IN DISINT./MIN/(GRAM OF COPPER). 30322 1  
 (CCW) NEUTRON GENERATOR. IN ORDER TO OBTAIN THE IRRADIATION TIMES 0.1 TO 1 SEC. A DEFLECTING ELECTRODE WAS PLACED IN THE GENERATOR TUBE. 30322 1  
 (D-T) (D,N)HE REACTION. 30322 1  
 14 MEV NEUTRONS, FLUX WAS 5.E+7 TO 2.E+8 N/CM2/SEC. (ACTIV) CYCLIC NEUTRON ACTIVATION METHOD WITH THE SECOND FAST PNEUMATIC TUBE SYSTEM (MEAN VELOCITY, 30M/S) EACH SAMPLE WAS IRRADIATED FOR 3 HALF-LIVES OF THE INVESTIGATED NUCLIDE. AND THE COUNTING TIME WAS EQUAL TO THE IRRADIATION, UNLESS THE SHORTENING OF THE FORMER WAS NECESSARY TO AVOID THE 'LONG-LIVED' NUCLIDE DECAY. AFTER A PAUSE OF 5 TO 10 HALF-LIVES OF NUCLIDE, A 2ND MEASUREMENT WITH THE SAME COUNTING TIME AS THE 1ST ONE WAS FOLLOWED. 30322 1  
 (NAICR) NA1(TL) 3 \* 3INCH, WITH A 400-CHANNEL ANALYSER VICTOREEN ST 400 DM. 30322 1  
 (SCIN) SCINTILLATION COUNTER, HORNIAK NE 450, WITH A PHOTOMULTIPLIER EMI6097F FOR NEUTRON MONITORING. 30322 1  
 (DG,B+) DECAY GAMMAS OR DECAY BETA+. 30322 1  
 THE DEAD TIME OF THE MULTICHANNEL ANALYSER WAS CORRECTED. 30322 1  
 ED. 30322 1  
 WHEN THE SAME ISOMER ARISES FROM TWO DIFFERENT ISOTOPES OF THE SAME ELEMENTS AS A RESULT OF THE (N,N') AND (N,2N) REACTIONS, THE WEIGHED MEAN CROSS-SECTION WAS CALCULATED, TAKING ISOTOPIC ABUNDANCES AS WEIGHTS. 30322 1  
 MAINLY TAKEN FROM THE TABLE OF ISOTOPES, LEDEKER ET AL., 6TH ED., 1967. 30322 1

ERR-ANALYS TOTAL ERROR IS GIVEN. THE LARGE ERROR FOR SOME OF CROSS-SECTIONS MAY PARTIALLY BE DUE TO INSTRUMENTAL IMPERFECTIONS AND TO THE FACT THAT THE CROSS-SECTION WAS NOT THE MAIN PURPOSE OF THIS FACILITY OF AUTOMATIC ACTIVATION ANALYSIS.

COMMENT IN A FEW CASES THE CONVERSION COEFFICIENT IS NOT KNOWN, AND IS ASSUMED TO BE 0 WITH THE NUMBER OF QUANTA PER DISINTEGRATION TO BE 1.

STATUS FROM TABLE 1 OF J. RADIOANAL. CHEM., 14(1973)201.

HISTORY (APRVD) APPROVED BY JANCZYCZYN WITH NOTES, 29/04/76. (760203C) KO. (760519A) KO. -ADD 'APRVD', INF. ON HALF-LIFE OF IN-114M230322 AND AUTHOR'S CORRECTION OF CE-140(N,2N) X-SECTION. -

ENDBIB 58  
COMMON 1  
EN 3  
MEV 1.4000E+01  
ENDCOMMON 3  
ENDSUBENT 65  
SUBENT 840530  
BIB 30322012 3  
REACTION (49-IN-115(N,2N)49-IN-114-M.,SIG)  
FLAG (3.) LEADING TO THIRD METASTABLE STATE OF IN-114 WITH HALF-LIFE OF 0.042 SEC  
(2.) LEADING TO SECOND METASTABLE STATE OF IN-114 WITH HALF-LIFE OF '2.5 SEC'.  
NOTE BY COMPILER= (MODIFIED AFTER AUTHOR'S NOTE, 4/76)30322 12 8  
THIS HALF-LIFE OF 2.5 SEC, WHICH WAS ERRONEOUSLY CITED 30322 12 9  
IN THE TABLE 2 OF CHEMIA ANALITYCZNA, 17(1972)703 AND 30322 12 10  
IN RADIOCHEM. RADIOANAL. LETTERS, 8(1971)363 AS '2.3 30322 12 11  
SEC', WAS TAKEN FROM THE FOLLOWING REPORT, 30322 12 12  
P. DUPONT-GAUTIER, S. CHANTELOT, N. MOISSON, 30322 12 13  
RAPPORT C.E.A.-R 2830, (1967). 30322 12 14  
AND THE GAMMA ENERGY DETECTED IS GIVEN AS 150 KEV. 30322 12 15  
\* A NUMBER OF QUANTA PER DISINTEGRATION IS ASSUMED 1.0 30322 12 16  
IN(2)-0(3). 30322 12 17  
30322 12 18  
30322 12 19  
30322 12 20  
30322 12 21  
30322 12 22  
30322 12 23  
30322 12 24  
30322 12 25  
30322 1299999  
30322999999999  
30390 0 1  
30390 1 1  
30390 1 2  
30390 1 3  
30390 1 4  
30390 1 5  
30390 1 6  
30390 1 7  
30390 1 8  
30390 1 9  
30390 1 10  
30390 1 11  
30390 1 12  
30390 1 13  
30390 1 14  
30390 1 15  
30390 1 16

SAMPLE 30322 12 17  
ENDBIB 30322 12 18  
NOCOMMON 30322 12 19  
DATA 30322 12 20  
HL 30322 12 21  
SEC 30322 12 22  
4.2000E-02 8.7000E+02 2.2000E+02 3.0000E+00  
2.5000E+00 1.1000E+01 2.0000E+00 2.0000E+00  
ENDDATA 30322 12 23  
ENDSUBENT 4 0  
ENTRY 24 0  
ENTR 2 1  
SUBENT 30390 850121  
BIB 30390 850121  
TITLE 56

AUTHOR (R.P. ANAND, D. BHATTACHARYA, M.L. JHINGAN, E. KONDAIAH)  
INSTITUTE (3INDTAT)  
REFERENCE (3INDTRM) 1ST AUTHOR'S ADDRESS AND LOCATION OF FACILITY  
WHICH ARE DIFFERENT FROM DATA UNDER SECOND REFERENCE  
(C, 74 BOMBAY, 2, 101, 7412) PRELIM. DATA  
(P, BARC-331, 20, 75)=(P, INDC(SEC)-50, 152, 7601)) NDG.  
SAMPLE POWDERS WERE IN THE FORMS OF FOLDS, METALLIC POWDERS OR  
MONITOR (53-I-127(N,G)53-I-128,,SIG)

MEASUREMENT OF ISOTOPIC NEUTRON CAPTURE CROSS-SECTIONS FOR V-51, CU-63, GA-71, GE-74, AS-75, MO-98, MO-100, RU-104, IN-115, TE-128, TE-130, CE-140, CE-142, HO-165 AT THE NEUTRON ENERGY OF (25+-5) KEV.  
(R.P. ANAND, D. BHATTACHARYA, M.L. JHINGAN, E. KONDAIAH)  
(3INDTAT)  
(3INDTRM) 1ST AUTHOR'S ADDRESS AND LOCATION OF FACILITY  
WHICH ARE DIFFERENT FROM DATA UNDER SECOND REFERENCE  
(C, 74 BOMBAY, 2, 101, 7412) PRELIM. DATA  
(P, BARC-331, 20, 75)=(P, INDC(SEC)-50, 152, 7601)) NDG.  
SAMPLE POWDERS WERE IN THE FORMS OF FOLDS, METALLIC POWDERS OR  
MONITOR (53-I-127(N,G)53-I-128,,SIG)

*Important reading material for identification*

*For reference use only of 01-114*

*could be from 70-000000000000-114*

6120+-120 MB FOR THERMAL, BYVES, J. NUCL. ENERGY, 24(1970)35. 832+-26 MB AT 25KEV, ROBERTSON, NUCL. PHYS. 71(1965)417.  
THERMAL (N,GAMMA) CROSS-SECTION FOR EACH REACTION. THE VALUES ARE NOT GIVEN.  
MONOENERGETIC FILTERED NEUTRON BEAM FACILITY AT THE REACTOR CIRUS, B.A.R.C. (FACILITY BELONGS TO THE AUTHORS) (REAC) REACTOR CIRUS, BHABHA ATOMIC RESEARCH CENTRE. THE ABOVE-MENTIONED FACILITY GIVES A FLUX OF ABOUT E+5 N/CM2/SEC WITH ENERGY OF (25+-5)KEV OVER AN AREA OF 3 INCH DIAMETER.  
AND THERMAL NEUTRON WAS ALSO USED.  
(ACTIV) ACTIVATION IN THE SAME GEOMETRY USING THE KEV AND THERMAL FLUXES.  
MEASUREMENT OF THE AREA UNDER THE PHOTOPEAK OF THE CHARACTERISTIC GAMMA-RAY.  
(MAICR) A WELL SHIELDED 3 INCH\*3 INCH NA1(TL) CRYSTAL. THE CAPTURE CROSS-SECTION AT 25KEV, SIG(KEV), IS GIVEN AS SIG(KEV)=SIG(THR)\*A(KEV)\*I(THR)\*F(KEV)/  
(A(THR)\*I(KEV)\*F(THR)), WHERE (KEV) AND (THR) STAND FOR THE VALUES AT THE IRRADIATION WITH 25KEV AND THERMAL FLUX, RESPECTIVELY. 'A' IS THE AREA UNDER THE PHOTOPEAK OF THE CHARACTERISTIC GAMMA RAY, 'F' IS A FUNCTION OF TIMES OF IRRADIATION AND COUNTING AND HALF-LIFE OF THE PRODUCT NUCLEUS, AND 'I' IS THE N-FLUX.  
THE DATA WAS CORRECTED FOR SELF-SHIELDING OF NEUTRONS. TOTAL ERROR IS GIVEN.  
STAT.ERROR IN THE AREA UNDER PHOTOPEAK 1 TO 2 PERC. ERROR IN TIME MEASUREMENTS LESS THAN 1 PERC. MAJOR CONTRIBUTION TO THE ERROR COMES FROM THE ERRORS IN THE STANDARD VALUES.  
==THE DECISION TO SUPERSEDE THE DATA PUBL. AT FIRST REF. BY DATA FROM THIRD REF. WAS TAKEN BY COMPILER (VP) AND BASED ON THE PRINCIPLE THAT LATEST PUBLICATION MUST CONTAIN THE FINAL RESULTS - 81/05/29 COMPILER.==  
DATA TAKEN FROM TABLE1 OF PROC. OF NUCL. PHYS. AND SOLID STATE PHYS. SYMMP., DEC 1974, VOL. B, P. 101.  
WERE SUPERSEDED LATER BY DATA TAKEN FROM NUOV.CIM., 50A, TABLE 1, P. 251-252, (1979)  
(770302C) KO.  
(810529A) NUMERICAL DATA WERE SUPERSEDED BY DATA FROM TABLE1, NUOV.CIM., 50A, P. 251-252, (1979). VP.

HISTORY	ENDBIB	COMMON	EN	KEY	ENDCOMMON	ENDSUBENT	SUBENT	BIB	REACTION	DECAY-DATA	ENDBIB	NOCOMMON	DATA	ERR-T	MB	ENDDATA	ENDSUBENT	ENTRY	SUBENT
	56	6	EN-RSL	MONIT1	MONIT1-ERR	MONIT2	MONIT2-ERR		(49-IN-116(N,G)49-IN-116-M,SIG)	(49-IN-116-M,54.MIN,DG,417.)									
			KEY	MB	MB	MB	MB												
			2.5000E+01	5.0000E+00	6.1200E+03	1.2000E+02	8.3200E+02	2.6000E+01											
			3	3	3	3	3	3											
			53	53	53	53	53	53											
			30390010	850121															
			2	2	2	2	2	2											
			7.1000E+02	7.1000E+01															
			3	3	3	3	3	3											
			10	10	10	10	10	10											
			2	2	2	2	2	2											
			305003	840911															
			305003001	840911															

30390 1 17  
30390 1 18  
30390 1 19  
30390 1 20  
30390 1 21  
30390 1 22  
30390 1 23  
30390 1 24  
30390 1 25  
30390 1 26  
30390 1 27  
30390 1 28  
30390 1 29  
30390 1 30  
30390 1 31  
30390 1 32  
30390 1 33  
30390 1 34  
30390 1 35  
30390 1 36  
30390 1 37  
30390 1 38  
30390 1 39  
30390 1 40  
30390 1 41  
30390 1 42  
30390 1 43  
30390 1 44  
30390 1 45  
30390 1 46  
30390 1 47  
30390 1 48  
30390 1 49  
30390 1 50  
30390 1 51  
30390 1 52  
30390 1 53  
30390 1 54  
30390 1 55  
30390 1 56  
30390 1 57  
30390 1 58  
30390 1 59  
30390 1 60  
30390 1 61  
30390 1 62  
30390 1 63  
30390 1 64  
30390 1 65  
30390 1 66  
30390 1 67  
30390 1 68  
30390 1 69  
30390 1 70  
30390 1 71  
30390 1 72  
30390 1 73  
30390 1 74  
30390 1 75  
30390 1 76  
30390 1 77  
30390 1 78  
30390 1 79  
30390 1 80  
30390 1 81  
30390 1 82  
30390 1 83  
30390 1 84  
30390 1 85  
30390 1 86  
30390 1 87  
30390 1 88  
30390 1 89  
30390 1 90  
30390 1 91  
30390 1 92  
30390 1 93  
30390 1 94  
30390 1 95  
30390 1 96  
30390 1 97  
30390 1 98  
30390 1 99  
30390 1 100

BIB 14 19  
 TITLE CAPTURE CROSS SECTIONS OF INTERMEDIATE NEUTRONS  
 AUTHOR (M.SRIRAMACHANDRA MURTY, K.SIDDAPPA, J.RAMA RAO)  
 INSTITUTE (3INDAUW)  
 REFERENCE (J,JPJ,35,8,7307)  
 SAMPLE METAL POWDERS OR OXIDES WITH PURITY GREATER THAN 99.9 PERCENT  
 MONITOR (53-I-127(N,G)53-I-128,,SIG)  
 INC-SOURCE (PHOTO) S3-BE PHOTONEUTRON SOURCE (20 CI)  
 METHOD (ACTIV)  
 PART-DET (DG)  
 DETECTOR (NAICR)  
 CORRECTION DEGRADATION IN ENERGY OF THE INCIDENT KEV NEUTRONS IS CONSIDERED NEGLIGIBLE  
 ERR-ANALYS ERRORS GIVEN INCLUDE CONTRIBUTIONS DUE TO STATISTICS (1 TO 3 PERCENT),  
 NEUTRON FLUX (7 PERCENT, INCL.STANDARD CROSS SECTION),  
 DECAY SCHEME (AS GIVEN IN LITERATURE),  
 DATA FROM J.PHYS.SOC.JAPAN,35,8(1973),TABLE 1.  
 STATUS HISTORY (800317C) OS.  
 ENDBIB 19  
 COMMON 4  
 EN EN-RSL MONIT MB MONIT-ERR  
 KEY KEY MB MB  
 2.4000E+01 5.0000E+00 8.3200E+02 2.6000E+01  
 ENDCOMMON 3  
 ENDSUBENT 26  
 SUBENT 30503011 840911  
 BIB 1  
 REACTION (49-IN-113(N,G)49-IN-114-M,,SIG)  
 ENDBIB 1  
 NOCOMMON 0  
 DATA 2  
 DATA DATA-ERR 1  
 MB  
 6.2900E+02 8.2000E+01  
 ENDDATA 3  
 ENDSUBENT 9  
 SUBENT 30503012 840911  
 BIB 1  
 REACTION (49-IN-115(N,G)49-IN-116-M,,SIG)  
 ENDBIB 1  
 NOCOMMON 0  
 DATA 2  
 DATA DATA-ERR 1  
 MB  
 9.0300E+02 1.0800E+02  
 ENDDATA 3  
 ENDSUBENT 9  
 ENDBIB 3  
 ENTRY 30612 840912  
 SUBENT 30612001 840912  
 BIB 11  
 TITLE ABSOLUTE (N,2N) CROSS SECTIONS OF NUCLEI NEAR 14 MEV  
 AUTHOR (A.CHATTERJEE,A.NATH,A.M.GHOSE)  
 INSTITUTE (3INDBOS)  
 REFERENCE (C,69RROORKEE,2,117,6912)  
 (R,BARC-474,50,70)  
 =====COMPILER NOTE=====IT WAS DECIDED BY COMPILER  
 (VP,811023) THAT DATA IN THIS ENTRY ARE  
 INDEPENDENT FROM DATA IN ENTRY 30061  
 250 KEV COCKROFT-WALTON ACCELERATOR  
 D-T NEUTRON DEUT=120.KEV  
 (ACTIV) SIGMA DETERMINED FROM ABSOLUTE VALUES OF

30503 1 2  
 30503 1 3  
 30503 1 4  
 30503 1 5  
 30503 1 6  
 30503 1 7  
 30503 1 8  
 30503 1 9  
 30503 1 10  
 30503 1 11  
 30503 1 12  
 30503 1 13  
 30503 1 14  
 30503 1 15  
 30503 1 16  
 30503 1 17  
 30503 1 18  
 30503 1 19  
 30503 1 20  
 30503 1 21  
 30503 1 22  
 30503 1 23  
 30503 1 24  
 30503 1 25  
 30503 1 26  
 30503 1 27  
 30503 199999 1  
 30503 11 1  
 30503 11 2  
 30503 11 3  
 30503 11 4  
 30503 11 5  
 30503 11 6  
 30503 11 7  
 30503 11 8  
 30503 11 9  
 30503 11 10  
 30503 119999 1  
 30503 12 1  
 30503 12 2  
 30503 12 3  
 30503 12 4  
 30503 12 5  
 30503 12 6  
 30503 12 7  
 30503 12 8  
 30503 12 9  
 30503 129999 1  
 3050399999999 1  
 30612 1 1  
 30612 1 2  
 30612 1 3  
 30612 1 4  
 30612 1 5  
 30612 1 6  
 30612 1 7  
 30612 1 8  
 30612 1 9  
 30612 1 10  
 30612 1 11  
 30612 1 12  
 30612 1 13

NEUTRON FLUX AND POSITRON ACTIVITY OF IRRADIATED

INC-SPECT

DETECTOR

ERR-ANALYS HISTORY (810610R) NUMERICAL DATA RECEIVED FROM AUTHOR (811123C) VP.

ENDBIB NOCOMMON ENDSUBENT SUBENT 23 0 0 26 0 0 30612006 840912 14 3 14

MONITOR

STATUS ENDBIB NOCOMMON DATA EN MB 1.4200E+01 1.8970E+03 2.0000E+02 1.4800E+01 1.4500E+03 2.0000E+02 ENDSUBENT SUBENT 23 0 0 23 0 0 30612007 840912 14 3 14

MONITOR

STATUS ENDBIB NOCOMMON DATA EN MB 1.4200E+01 8.0830E+02 1.0000E+02 1.4800E+01 7.0000E+02 1.0000E+02 ENDDATA 4 4

ENDBIB NOCOMMON DATA EN MB 1.4200E+01 8.0830E+02 1.0000E+02 1.4800E+01 7.0000E+02 1.0000E+02 ENDDATA 4 4

30612	1	14
30612	1	15
30612	1	16
30612	1	17
30612	1	18
30612	1	19
30612	1	20
30612	1	21
30612	1	22
30612	1	23
30612	1	24
30612	1	25
30612	1	26
30612	1	27
30612	1	28
30612	1	29
30612	1	30
30612	1	31
30612	1	32
30612	1	33
30612	1	34
30612	1	35
30612	1	36
30612	1	37
30612	1	38
30612	1	39
30612	1	40
30612	1	41
30612	1	42
30612	1	43
30612	1	44
30612	1	45
30612	1	46
30612	1	47
30612	1	48
30612	1	49
30612	1	50
30612	1	51
30612	1	52
30612	1	53
30612	1	54
30612	1	55
30612	1	56
30612	1	57
30612	1	58
30612	1	59
30612	1	60
30612	1	61
30612	1	62
30612	1	63
30612	1	64
30612	1	65
30612	1	66
30612	1	67
30612	1	68
30612	1	69
30612	1	70
30612	1	71
30612	1	72
30612	1	73
30612	1	74
30612	1	75
30612	1	76
30612	1	77
30612	1	78
30612	1	79
30612	1	80
30612	1	81
30612	1	82
30612	1	83
30612	1	84
30612	1	85
30612	1	86
30612	1	87
30612	1	88
30612	1	89
30612	1	90
30612	1	91
30612	1	92
30612	1	93
30612	1	94
30612	1	95
30612	1	96
30612	1	97
30612	1	98
30612	1	99
30612	1	100

Handwritten notes at the bottom left of the page, including a signature and some illegible text.

ENDSUBENT 23 0 30612 7999999  
 ENTRY 3 1 30628 0 9999999  
 SUBENT 30628001 840912 30628 1 1  
 BIB 14 30 30628 1 1  
 TITLE CROSS SECTION MEASUREMENTS FOR THE REACTIONS  
 IN-115(N,N')IN-115M, IN-113(N,N')IN-113M AND  
 IN-115(N,G)IN-116M,  
 (C-F,Al,J.-C.CHOU)  
 (3CHF5HI)  
 (J,NSF,16,(3),157,7909)  
 HIGH-PURITY NATURAL INDIUM (95.72PERC.IN-115, 4.28PERC.  
 IN-113) IN A DISC SHAPE OF 2.54CM DIA.,0.5CM THICK.  
 (1-H-1(N,EL)1-H-1,SIG)  
 EVAPORATING STEARIC ACID, C(18)-H(36)-O(2), ONTO A  
 STAINLESS STEEL PLATE.  
 (VDG,3CHF5HI)  
 (P-L17)  
 (ACTIV)  
 (GELI)

FACILITY INC-SOURCE (P-L17)  
 METHOD (ACTIV)  
 DETECTOR (GELI)  
 RESOLUTION OF 3.2KEV AT 1.17 MEV GAMMA-RAY.  
 RELATIVE EFFICIENCY OF THE DETECTOR WAS CALIBRATED WITH  
 A STANDARD EU-152 SOURCE, AND THE ABSOLUTE EFFICIENCY  
 WAS THEN OBTAINED BY NORMALIZING WITH A CO-58 STANDARD  
 SOURCE.  
 COUNTINGS HAVE BEEN CORRECTED FOR ACTIVITY DECAY AND  
 OTHER ESSENTIAL TIME FACTORS. AND CORRECTIONS HAVE  
 ALSO MADE TO ACCOUNT FOR SPECIFIC DECAY PROPERTIES OF  
 PRODUCT NUCLEI, DETECTOR EFFICIENCY, MULTIPLE SCATTER-  
 ING (ABOUT 8 PERC.) AND GAMMA RAY ABSORPTION IN THE  
 SAMPLE (ABOUT 1 PERC.).  
 THE UNCERTAINTY IN MEASURED CROSS-SECTION WAS ESTIMATED  
 TO BE ABOUT 6.5 PERCENT.  
 DATA TAKEN FROM TABLE 1 OF NUCL.SCI.J.,16,(3)(1979)155.  
 (820528C) KO.

ERR-ANALYS  
 STATUS (49-IN-115(N,G)49-IN-116-M,(,SIG)  
 HISTORICAL (49-IN-116-M,54.MIN,DG,1293.,0.82)  
 ENDBIB 2 0 30628 4 4  
 NOCOMMON 0 0 30628 1 33  
 ENDSUBENT 33 0 30628 1 1999999  
 SUBENT 30628004 840912 30628 4 1

BIB 2 2 30628 4 1  
 REACTION (49-IN-115(N,G)49-IN-116-M,(,SIG)  
 DECAY-DATA (49-IN-116-M,54.MIN,DG,1293.,0.82)  
 ENDBIB 2 0 30628 4 4  
 NOCOMMON 0 0 30628 1 33  
 ENDSUBENT 33 0 30628 1 1999999  
 SUBENT 30628004 840912 30628 4 1

EN EN-ERR DATA DATA-ERR  
 MEV MB MB  
 9.9000E-01 3.0000E-02 2.3600E+02 1.5000E+01 30628 4 4 9  
 1.4100E+00 4.0000E-02 2.0300E+02 1.3000E+01 30628 4 4 11  
 1.6100E+00 4.0000E-02 2.0300E+02 1.3000E+01 30628 4 4 11  
 1.8200E+00 4.0000E-02 1.6900E+02 1.1000E+01 30628 4 4 12  
 2.0200E+00 4.0000E-02 1.6100E+02 1.0000E+01 30628 4 4 13  
 2.2200E+00 4.0000E-02 1.4100E+02 9.0000E+00 30628 4 4 14  
 2.5300E+00 4.0000E-02 1.2000E+02 8.0000E+00 30628 4 4 15  
 2.6300E+00 4.0000E-02 1.0000E+02 7.0000E+00 30628 4 4 16  
 2.8300E+00 4.0000E-02 6.0800E+01 4.0000E+00 30628 4 4 17  
 3.2300E+00 4.0000E-02 4.8700E+01 3.2000E+00 30628 4 4 18  
 3.4300E+00 4.0000E-02 6.2400E+01 4.1000E+00 30628 4 4 19  
 3.6300E+00 4.0000E-02 4.4200E+01 2.9000E+00 30628 4 4 20  
 4.0300E+00 4.0000E-02 3.5800E+01 2.3000E+00 30628 4 4 21  
 4.2300E+00 4.0000E-02 3.5600E+01 3.0000E+00 30628 4 4 22  
 ENDDATA 16 0 30628 4 24  
 ENDSUBENT 23 0 30628 4 9999999  
 ENTRY 1 1 30628 0 9999999

ENDSUBENT 23 0 30612 7999999  
 ENTRY 3 1 30628 0 9999999  
 SUBENT 30628001 840912 30628 1 1  
 BIB 14 30 30628 1 1  
 TITLE CROSS SECTION MEASUREMENTS FOR THE REACTIONS  
 IN-115(N,N')IN-115M, IN-113(N,N')IN-113M AND  
 IN-115(N,G)IN-116M,  
 (C-F,Al,J.-C.CHOU)  
 (3CHF5HI)  
 (J,NSF,16,(3),157,7909)  
 HIGH-PURITY NATURAL INDIUM (95.72PERC.IN-115, 4.28PERC.  
 IN-113) IN A DISC SHAPE OF 2.54CM DIA.,0.5CM THICK.  
 (1-H-1(N,EL)1-H-1,SIG)  
 EVAPORATING STEARIC ACID, C(18)-H(36)-O(2), ONTO A  
 STAINLESS STEEL PLATE.  
 (VDG,3CHF5HI)  
 (P-L17)  
 (ACTIV)  
 (GELI)  
 RESOLUTION OF 3.2KEV AT 1.17 MEV GAMMA-RAY.  
 RELATIVE EFFICIENCY OF THE DETECTOR WAS CALIBRATED WITH  
 A STANDARD EU-152 SOURCE, AND THE ABSOLUTE EFFICIENCY  
 WAS THEN OBTAINED BY NORMALIZING WITH A CO-58 STANDARD  
 SOURCE.  
 COUNTINGS HAVE BEEN CORRECTED FOR ACTIVITY DECAY AND  
 OTHER ESSENTIAL TIME FACTORS. AND CORRECTIONS HAVE  
 ALSO MADE TO ACCOUNT FOR SPECIFIC DECAY PROPERTIES OF  
 PRODUCT NUCLEI, DETECTOR EFFICIENCY, MULTIPLE SCATTER-  
 ING (ABOUT 8 PERC.) AND GAMMA RAY ABSORPTION IN THE  
 SAMPLE (ABOUT 1 PERC.).  
 THE UNCERTAINTY IN MEASURED CROSS-SECTION WAS ESTIMATED  
 TO BE ABOUT 6.5 PERCENT.  
 DATA TAKEN FROM TABLE 1 OF NUCL.SCI.J.,16,(3)(1979)155.  
 (820528C) KO.  
 ERR-ANALYS  
 STATUS (49-IN-115(N,G)49-IN-116-M,(,SIG)  
 HISTORICAL (49-IN-116-M,54.MIN,DG,1293.,0.82)  
 ENDBIB 2 0 30628 4 4  
 NOCOMMON 0 0 30628 1 33  
 ENDSUBENT 33 0 30628 1 1999999  
 SUBENT 30628004 840912 30628 4 1  
 BIB 2 2 30628 4 1  
 REACTION (49-IN-115(N,G)49-IN-116-M,(,SIG)  
 DECAY-DATA (49-IN-116-M,54.MIN,DG,1293.,0.82)  
 ENDBIB 2 0 30628 4 4  
 NOCOMMON 0 0 30628 1 33  
 ENDSUBENT 33 0 30628 1 1999999  
 SUBENT 30628004 840912 30628 4 1  
 EN EN-ERR DATA DATA-ERR  
 MEV MB MB  
 9.9000E-01 3.0000E-02 2.3600E+02 1.5000E+01 30628 4 4 9  
 1.4100E+00 4.0000E-02 2.0300E+02 1.3000E+01 30628 4 4 11  
 1.6100E+00 4.0000E-02 2.0300E+02 1.3000E+01 30628 4 4 11  
 1.8200E+00 4.0000E-02 1.6900E+02 1.1000E+01 30628 4 4 12  
 2.0200E+00 4.0000E-02 1.6100E+02 1.0000E+01 30628 4 4 13  
 2.2200E+00 4.0000E-02 1.4100E+02 9.0000E+00 30628 4 4 14  
 2.5300E+00 4.0000E-02 1.2000E+02 8.0000E+00 30628 4 4 15  
 2.6300E+00 4.0000E-02 1.0000E+02 7.0000E+00 30628 4 4 16  
 2.8300E+00 4.0000E-02 6.0800E+01 4.0000E+00 30628 4 4 17  
 3.2300E+00 4.0000E-02 4.8700E+01 3.2000E+00 30628 4 4 18  
 3.4300E+00 4.0000E-02 6.2400E+01 4.1000E+00 30628 4 4 19  
 3.6300E+00 4.0000E-02 4.4200E+01 2.9000E+00 30628 4 4 20  
 4.0300E+00 4.0000E-02 3.5800E+01 2.3000E+00 30628 4 4 21  
 4.2300E+00 4.0000E-02 3.5600E+01 3.0000E+00 30628 4 4 22  
 ENDDATA 16 0 30628 4 24  
 ENDSUBENT 23 0 30628 4 9999999  
 ENTRY 1 1 30628 0 9999999

ENTRY	30813	851210	30813	0	1
SUBENT	30813001	851210	30813	1	1
TITLE	8	21	30813	1	2
			30813	1	3
			30813	1	4
			30813	1	5
			30813	1	6
			30813	1	7
			30813	1	8
			30813	1	9
			30813	1	10
			30813	1	11
			30813	1	12
			30813	1	13
			30813	1	14
			30813	1	15
			30813	1	16
			30813	1	17
			30813	1	18
			30813	1	19
			30813	1	20
			30813	1	21
			30813	1	22
			30813	1	23
			30813	1	24
			30813	1	25
			30813	1	26
			30813	1	27
			30813	1	28
			30813	1	29
			30813	1	30
			30813	5	1
			30813	5	2
			30813	5	3
			30813	5	4
			30813	5	5
			30813	5	6
			30813	5	7
			30813	5	8
			30813	5	9
			30813	5	10
			30813	5	11
			30813	5	12
			30813	5	13
			30813	5	14
			30813	5	15
			30813	5	16
			30813	5	17
			30813	5	18
			30813	5	19
			30813	5	20
			30813	5	21
			30813	5	22
			30813	5	23
			30813	5	24
			30813	5	25
			30813	5	26
			30813	5	27
			30813	5	28
			30813	5	29
			30813	5	30
			30813	5	31
			30813	5	32
			30813	5	33
			30813	5	34
			30813	5	35
			30813	5	36
			30813	5	37
			30813	5	38
			30813	5	39
			30813	5	40
			30813	5	41
			30813	5	42
			30813	5	43
			30813	5	44
			30813	5	45
			30813	5	46
			30813	5	47
			30813	5	48
			30813	5	49
			30813	5	50
			30813	5	51
			30813	5	52
			30813	5	53
			30813	5	54
			30813	5	55
			30813	5	56
			30813	5	57
			30813	5	58
			30813	5	59
			30813	5	60
			30813	5	61
			30813	5	62
			30813	5	63
			30813	5	64
			30813	5	65
			30813	5	66
			30813	5	67
			30813	5	68
			30813	5	69
			30813	5	70
			30813	5	71
			30813	5	72
			30813	5	73
			30813	5	74
			30813	5	75
			30813	5	76
			30813	5	77
			30813	5	78
			30813	5	79
			30813	5	80
			30813	5	81
			30813	5	82
			30813	5	83
			30813	5	84
			30813	5	85
			30813	5	86
			30813	5	87
			30813	5	88
			30813	5	89
			30813	5	90
			30813	5	91
			30813	5	92
			30813	5	93
			30813	5	94
			30813	5	95
			30813	5	96
			30813	5	97
			30813	5	98
			30813	5	99
			30813	5	100

INC-SOURCE (D-T) NEUTRON GENERATOR TEXAS (MODEL 9900)  
 STATUS WORK PERFORMED UNDER IAEA INTERREGIONAL PROJECT  
 INT/1/018  
 THIS EXFOR ENTRY SUPERSEDES THE ENTRY 30647  
 (850814C) DG.

HISTORY ENDBIB COMMON 21 2 3  
 EN 2  
 MONIT B  
 MEV 1.4750E+01 2.2100E+00  
 ENDCOMMON 3  
 ENDSUBENT 28  
 SUBENT 30813005 851210  
 BIB 7  
 REACTION (49-IN-115(N,INL)49-IN-115,,SIG)  
 SAMPLE PURE METAL FOIL. WEIGHT - 0.259473 G. DIAMETER - 20 MM,  
 THICKNESS - 0.127 MM, PURITY - 99.9959 PERCENT  
 METHOD (ACTIV) 100 CM3 GE-LI DETECTOR  
 DETECTOR (GELT) FOR AVERAGE FLUX DETERMINATION  
 CORRECTION (FISCH) FOR SELF-ABSORPTION AND IMPURITIES  
 ERR-ANALYS (ERR-T) TOTAL ERROR. PARTIAL COMPONENTS (IN PERCENT)  
 -STATISTICS 0.63 - 1.6  
 -CALIBRATION IN ABSOLUTE EFFICIENCY 1.55 - 2.17  
 -BACKGROUND SUBTRACTION 0.50 - 1.20  
 -ABSOLUTE FLUX DETERMINATION 2.13 - 2.50  
 DATA TAKEN FROM TAB. 7, REV. ROUM. PHYS. 29(1984)421.

STATUS ENDBIB NOCOMMON 13 0 0  
 DATA ERR-T 2 1  
 DATA MB  
 MB 9.0500E+01 4.1000E+00  
 ENDDATA 3  
 ENDSUBENT 21  
 ENTRY 2  
 SUBENT 30815 851210  
 BIB 30815001 851210  
 16 30  
 TITLE APPLICABILITY OF THE ACTIVATION TECHNIQUE FOR THE  
 NEUTRON CAPTURE CROSS SECTION MEASUREMENT IN THE  
 ENERGY RANGE OF 5 - 7 MEV  
 (S. DAROCZY, G. PETO, N. V. KORNILOV, O. A. SALNIKOV,  
 V. YA. BARIBA, A. V. BALICKY, A. P. RUDENKO)  
 (3HUNKOS) FIRST AND SECOND AUTHORS

```

(ACCPFEI) THIRD TO SEVENTH AUTHORS
REFERENCE (W,CSIKAI,850411)
SAMPLE NATURAL METALLIC IN FOLDS WITH THICKNESSES OF
30 - 150 MG/CM2
MONITOR (49-IN-115(N,INL)49-IN-115-M,SIG)
DECAY-MON (49-IN-115-M,4.49HR,DG,336.,0.459)
FACILITY (VDGT,ACCPFEI)
INC-SOURCE (D-D) GAS TARGET
METHOD (ACTIV)
DETECTOR (GELI)
PART-DET (DG)
CORRECTION
-FOR ROOM-SCATTERED NEUTRONS
-FOR THE BACKGROUND NEUTRONS(FROM
THE EMPTY GAS TARGET CELL)
-TRUE COINCIDENCE CORRECTIONS
-ACCURACY OF FLUX DETERMINATIONS
THE ERRORS INDICATED AT THE CROSS SECTION VALUES
ARISE MAINLY FROM STATISTICS
WORK PERFORMED UNDER IAEA RESEARCH AGREEMENT 3285/CF,
WITHIN THE FRAMEWORK OF THE INTERREGIONAL PROJECT
INT/1/018.
DATA TAKEN FROM CSIKAI PRIV.COMM 11/4/85.
(851111C) DG.-
HISTORY 30 0
ENDBIB 0
NOCOMMON 0
ENDSUBENT 33
SUBENT 30815002 851210 4
BIB 2
REACTION (49-IN-115(N,G)49-IN-116-M1",SIG)
DECAY-DATA (49-IN-116-M1,54.1MIN,DG,416.,0.324,
DG,1097.,0.557,
DG,1293.,0.850)
ENDBIB 4
NOCOMMON 0
DATA 0
EN-ERR 5
MEV 5
5.7500E+00 1.4000E-01 5.0000E+00 1.4000E+00 3.3630E+02
6.4800E+00 1.3000E-01 4.3000E+00 1.0000E+00 3.3615E+02
7.1100E+00 1.3000E-01 2.6000E+00 1.1000E+00 3.0245E+02
ENDDATA 5
ENDSUBENT 0
ENDENTRY 14
ENDTRANS 13
IN PER-CENT
30.
16. - 44.
0.8 - 0.9
1.2 - 10.5
30815 1 1 9
30815 1 10
30815 1 11
30815 1 12
30815 1 13
30815 1 14
30815 1 15
30815 1 16
30815 1 17
30815 1 18
30815 1 19
30815 1 20
30815 1 21
30815 1 22
30815 1 23
30815 1 24
30815 1 25
30815 1 26
30815 1 27
30815 1 28
30815 1 29
30815 1 30
30815 1 31
30815 1 32
30815 1 33
30815 1 34
30815 1 199999
30815 2 2
30815 2 3
30815 2 4
30815 2 5
30815 2 6
30815 2 7
30815 2 8
30815 2 9
30815 2 10
30815 2 11
30815 2 12
30815 2 13
30815 2 14
30815 2 15
30815 2 299999
30815 2 999999
Z99999999999999

```



+TRANS 0 860613  
 ENTRY 30077 850219  
 SUBENT 30077001 850219  
 BIB 14 36  
 TITLE NEUTRON ACTIVATION CROSS-SECTIONS AT 24 KEV  
 AUTHOR (S.S.HASAN,A.K.CHAUBEY, M.L.SEHGAL)  
 INSTITUTE (J.NC/B,58,402,6812) TABLE OF CROSS SECTIONS GIVEN  
 REFERENCE (3INDMUA)  
 SAMPLE (S.S.HASAN,A.K.CHAUBEY, M.L.SEHGAL)  
 MONITOR (53-1-127(N,G)53-1-128,,SIG)  
 I-127(N,GAMMA)I-128 SIGMA = 0.82 BARN

INC-SOURCE ASSUMED  
 ANTIMONY-BERYLLIUM, 1.7CM DIAM. \* 3.3CM HEIGHT,  
 METHOD FLUX GREATER THAN 10E+7 NEUTRONS/SEC  
 PART-DET (ACTIV) BETA DECAY MEASURED - ACTIVATION METHOD  
 DETECTOR (B-) BETA PARTICLES DETECTED  
 ERR-ANALYS (GEMUC) END WINDOW BETA COUNTER  
 (DATA-ERR) GIVEN ERROR CONSISTS OF  
 1.) 1 PERCENT IN ESTIMATION OF TOTAL NUMBER OF TARGET NUCLEI.  
 2.) 2 PERCENT IN MEASUREMENT OF SAMPLE-SOURCE GEOMETRY EFFECT WHICH WILL DEPEND UPON REPRODUCIBILITY OF THE GEOMETRY.  
 3.) IRRADIATION TIME MEASURED WITH AN ACCURACY OF BETTER THAN 1 PERCENT.  
 4.) ABOUT 2 PERCENT ERROR IN MEASUREMENT OF THE CROSS-SECTIONS ESTIMATED TO BE DUE TO THE GAMMA-RAYS DETECTED BY BETA-COUNTER.  
 5.) STATISTICAL ERROR VARIES FROM ONE CASE TO ANOTHER. ABSENCE OF THERMAL NEUTRONS DETERMINED, INFLUENCE OF SCATTERED NEUTRONS OF LOWER THAN 24. KEV ENERGY NEGLIGIBLE DUE TO GEOMETRY, I.E. LARGE ROOM, REMOTE LOCATION OF NEUTRON SOURCE FROM THE FLOOR (=1.3 M) AND NO SHIELDING MATERIAL AROUND THE SOURCE.

STATUS HISTORY  
 ENDBIB COMMON 36  
 EN 1 3  
 KEV 2.4000E+01  
 ENDCOMMON 3  
 ENDSUBENT 43  
 SUBENT 30077014 840503  
 BIB 1  
 REACTION (51-SB-123(N,G)51-SB-124-M,,SIG)  
 HALF LIFE = 1.3 MIN

ENDBIB NOCOMMON 2  
 DATA 0  
 DATA-ERR 1  
 MB 2  
 5.4000E+00 1.3000E+00  
 ENDDATA 3  
 ENDSUBENT 10  
 SUBENT 30077015 840503  
 BIB 1  
 REACTION (51-SB-123(N,G)51-SB-124-M,,SIG)  
 HALF LIFE = 21. MIN

ENDBIB 2  
 DATA-ERR 0  
 MB 0  
 5.4000E+00 1.3000E+00  
 ENDDATA 3  
 ENDSUBENT 10  
 SUBENT 30077015 840503  
 BIB 1  
 REACTION (51-SB-123(N,G)51-SB-124-M,,SIG)  
 HALF LIFE = 21. MIN

ENDBIB 2  
 DATA-ERR 0  
 MB 0  
 5.4000E+00 1.3000E+00  
 ENDDATA 3  
 ENDSUBENT 10  
 SUBENT 30077015 840503  
 BIB 1  
 REACTION (51-SB-123(N,G)51-SB-124-M,,SIG)  
 HALF LIFE = 21. MIN

NOCOMMON 0  
DATA 2  
DATA 1  
DATA-ERR 1  
MB 3.1000E+00 1.5000E+00  
ENDDATA 3  
ENDSUBENT 10  
ENDENTRY 3  
ENDTRANS 1

30077 15 6  
30077 15 7  
30077 15 8  
30077 15 9  
30077 15 10  
30077 15 11  
30077 1599999  
30077999999999  
Z9999999999999



NOCOMMON 0 0  
DATA 2 1  
DATA 1  
DATA-ERR 2  
MB 3  
4.5000E+00 3.1000E+00  
ENDDATA 3  
ENDSUBENT 10  
ENDENTRY 2  
ENDTRANS 1

30136 11 6  
30136 11 7  
30136 11 8  
30136 11 9  
30136 11 10  
30136 11 11  
30136 1199999  
301369999999  
Z999999999999

+TRANS 0 860616  
ENTRY 40006 850329  
SUBENT 40006001 850329  
BIB 13 50  
TITLE RADIATIVE CAPTURE CROSS-SECTIONS FOR NEUTRONS WITH  
ENERGY 0.2 - 3.0 MEV BY NUCLEI TE-128 AND TE-130  
(A.G.DOVHENKO,V.E.KOLESOV,V.P.KOROLEVA,V.A.TOLSTIKOV,  
JU.N.SHUBIN)

AUTHOR  
INSTITUTE  
REFERENCE (U,AE,25,(6),529,6812) GRAPHS ONLY.EN.RANGE 0.2-3.0 MEV  
(R,VF1-66,11,68) DATA IN FORM OF TABLES.ENERGY RANGE  
100.-350.KEV

METHOD (J,SA,25,1376,6812) ENGL. TRANSL. OF AT.EN.25,529,6812  
FACILITY (J,EAF,25,12,6812) FRENCH TRANSL. OF AT.EN.25,529,6812  
DETECTOR (J,AE,27,406,6911) GRAPHS ONLY.ENERGY RANGE 100.-350.KEV  
(J,SA,27,1185,6911) ENGL. TRANSL. OF AT.EN.27,406,6911  
(J,EAF,27,41,6911) FRENCH TRANSL. OF AT.EN.27,406,6911  
(ACTIV) ACTIVATION METHOD  
(VDG) 2.5 MEV AND 5.0 MEV VAN DE GRAAFF  
(PROP) TWO END-TYPE BETA-COUNTERS IN GEOMETRY  
NEAR API  
(FISCH) FISSION CHAMBER FOR REGISTRATION OF U-235  
FISSION EVENTS  
(LONG) LONG COUNTER FOR BACKGROUND MEASUREMENTS,  
NEUTRON FLUX MONITORING AND ETC.  
(P-LIT) PROTON-LITHIUM-7 IN NEUTRON ENERGY RANGE FROM  
0.01 MEV UP TO 0.3 MEV  
(P-T) PROTON-TRITIUM IN ENERGY RANGE OF NEUTRONS FROM  
0.3 MEV UP TO 3.0 MEV

INC-SOURCE (B-) DECAY BETA-CORRECTIONS WERE INTRODUCED  
ON BACKGROUND OF NEUTRONS SCATTERED FROM MATERIAL OF  
TARGET UNDERLAYER AND TARGETHOLDER  
ON BACKGROUND OF NEUTRONS SCATTERED IN MEASURING ROOM  
ON BACKGROUND OF NEUTRONS FROM FOREIGN REACTIONS  
ON NEUTRON FLUX ATTENUATION WITH DISTANCE FROM TARGET  
ON 92-U-238 FISSION  
ON DEVIATION OF U-235 FISSION CROSS-SECTION ENERGY  
DEPENDENCE FROM 1/V LAW IN THERMAL NEUTRONS ENERGY  
RANGE

PART-DET (-EN-ERR) ENERGY ERRORS ARE EXPLAINED BY SCATTER OF  
CORRECTION PROTON ENERGY,FINAL THICKNESS OF TARGET,ANGULAR  
DIMENSIONS OF IRRADIATED SAMPLE AND CHAMBER  
ON BACKGROUND OF NEUTRONS SCATTERED IN MEASURING ROOM  
ON BACKGROUND OF NEUTRONS FROM FOREIGN REACTIONS  
ON NEUTRON FLUX ATTENUATION WITH DISTANCE FROM TARGET  
ON 92-U-238 FISSION  
ON DEVIATION OF U-235 FISSION CROSS-SECTION ENERGY  
DEPENDENCE FROM 1/V LAW IN THERMAL NEUTRONS ENERGY  
RANGE

ERR-ANALYS (+EN-ERR) ENERGY ERRORS ARE EXPLAINED BY SCATTER OF  
PROTON ENERGY,FINAL THICKNESS OF TARGET,ANGULAR  
DIMENSIONS OF IRRADIATED SAMPLE AND CHAMBER  
(DATA-ERR1) INCLUDES ERROR IN ENERGY DEPENDENCE OF  
MEASURED CROSS-SECTION,NAMELY STATISTICAL ERRORS,  
ERRORS OF CORRECTIONS,ERRORS OF U-235 FISSION CROSS  
SECTION  
(DATA-ERR2) INCLUDES ALL ERRORS OF EXPERIMENT,ERRORS  
OF SUPPORTING CROSS-SECTIONS  
(SPSD) DATA REVISED BY V.P.KOROLEVA WITH ACCOUNTING  
NEW VALUES OF STANDARDS (1958). DATA RECEIVED FROM  
AUTHORS  
(700708C) DATA COMPILED AT THE CENTRE

STATUS  
HISTORY  
ENDBIB  
NOCOMMON  
ENDSUBENT  
SUBENT  
BIB  
REACTION  
MONITOR

40006 0 1 0  
40006 1 1 1  
40006 1 2 2  
40006 1 3 3  
40006 1 4 4  
40006 1 5 5  
40006 1 6 6  
40006 1 7 7  
40006 1 8 8  
40006 1 9 9  
40006 1 10 10  
40006 1 11 11  
40006 1 12 12  
40006 1 13 13  
40006 1 14 14  
40006 1 15 15  
40006 1 16 16  
40006 1 17 17  
40006 1 18 18  
40006 1 19 19  
40006 1 20 20  
40006 1 21 21  
40006 1 22 22  
40006 1 23 23  
40006 1 24 24  
40006 1 25 25  
40006 1 26 26  
40006 1 27 27  
40006 1 28 28  
40006 1 29 29  
40006 1 30 30  
40006 1 31 31  
40006 1 32 32  
40006 1 33 33  
40006 1 34 34  
40006 1 35 35  
40006 1 36 36  
40006 1 37 37  
40006 1 38 38  
40006 1 39 39  
40006 1 40 40  
40006 1 41 41  
40006 1 42 42  
40006 1 43 43  
40006 1 44 44  
40006 1 45 45  
40006 1 46 46  
40006 1 47 47  
40006 1 48 48  
40006 1 49 49  
40006 1 50 50  
40006 1 51 51  
40006 1 52 52  
40006 1 53 53  
40006 1 54 54  
199999 1 54 54  
40006 2 1 1  
40006 2 2 2  
40006 2 3 3  
40006 2 4 4  
40006 2 5 5  
40006 2 6 6  
40006 2 7 7

SEE M.DAVEY, NUCL. SCI. AND ENG., 26, 149, 1956  
 FOR ABSOLUTE NORMALIZATION OF CROSS-SECTION BELOW 0.3  
 MEV THE DATA OF THIS SUBENTRY ABOVE 0.3 MEV USED  
 NATURAL MIXTURE OF ISOTOPES, METALLIC DISK  
 WITH THICKNESS 0.165 G/CM\*\*2

HALF-LIFE (HL, 52-TE-129-M1)  
 ENDBIB 12 0  
 COMMON 1 3

HL 12 0

MIN 6.7000E+01

ENDCOMMON 3 0

NODATA 20 0

ENDSUBENT 40006003 850329

SUBENT 3 12

BIB 3 12

REACTION (52-TE-133(N,G)52-TE-131-M,,SIG)  
 DATA RECEIVED FROM AUTHORS  
 (92-U-235(N,F),,SIG)

FOR ABSOLUTE NORMALIZATION OF CROSS  
 SECTION IN ENERGY RANGE FROM 0.3 MEV UP TO 3.5 MEV  
 SEE M.DAVEY, NUCL. SCI. AND ENG., 26, 149, 1956  
 FOR ABSOLUTE NORMALIZATION OF CROSS SECTION IN ENERGY  
 RANGE BELOW 0.3 MEV THE DATA OF THIS SUBENTRY  
 ABOVE 0.3 MEV WERE USED  
 NATURAL MIXTURE OF ISOTOPES, METALLIC DISK  
 WITH THICKNESS 0.165 G/CM\*\*2

ENDBIB 12 0

COMMON 1 3

HL 12 0

MIN 2.5000E+01

ENDCOMMON 3 0

NODATA 20 0

ENDSUBENT 40006 3 11

ENDENTRY 4 21

ENDTRANS 1 1

40006 2 8  
 40006 2 9  
 40006 2 10  
 40006 2 11  
 40006 2 12  
 40006 2 13  
 40006 2 14  
 40006 2 15  
 40006 2 16  
 40006 2 17  
 40006 2 18  
 40006 2 19  
 40006 2 20  
 40006 2 21  
 40006 3 3  
 40006 3 4  
 40006 3 5  
 40006 3 6  
 40006 3 7  
 40006 3 8  
 40006 3 9  
 40006 3 10  
 40006 3 11  
 40006 3 12  
 40006 3 13  
 40006 3 14  
 40006 3 15  
 40006 3 16  
 40006 3 17  
 40006 3 18  
 40006 3 19  
 40006 3 20  
 40006 3 21  
 40006999999999  
 Z99999999999999

*Subentry 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21*

```

TRANS        0          850502          0          0          1
ENTRY        30021          850219          30021          0          1
SUBENT       30021001          850219          30021          1          1
BIB          15          35          30021          1          2
TITLE        A STUDY OF THE SPONTANEOUSLY-FISSIONING ISOMER OF
              AM-242 THROUGH THE AM-241(N,G) REACTION
              (G.N.FLEROV,A.A.PLEVE,S.M.POLIKANOV,S.P.TRETYAKOVA,
              I.BOCA,M.SEZON,I.VILCOV,N.VILCOV)
              (3RUMBUC)
AUTHOR
INSTITUTE
REFERENCE
(J,NP/A,102,443,6710)EXPERIMENT DESCRPTN, GRAPH, NO DATA30021 1 8
(R, IFA-CRD-34,6705) SAME INFORM AS NP/A,102,443,10/67 30021 1 9
(J,RRP,13,181,6802) SHORT DESCRIPTION, CURVES 30021 1 10
(J,NP/A,134,541,6909)DISCUSSION ONLY, CORRECTED CURVES 30021 1 11
(J,NP/A,97,444,6704)PRELIMINARY RESULT ONLY, HALF-LIFE 30021 1 12
(R, IFA-CRD-32,6610) SAME AS NP/A,97,444,4/67 30021 1 13
(95-AM-241(N,G)95-AM-242-M,,SIG) 30021 1 14
(CYCLO) CYCLOTRON PROVIDING PROTONS WITH ENERGIES OF 30021 1 15
4.5, 7.5 AND 9.8 MEV, BEAM CURRENT 10-15 MICRO AMP 30021 1 16
(P-LI7) LI-7(P,N)BE-7 REACTION, LI FOILS FROM 100 - 50030021 1 17
MICROMETER THICK WERE HELD BETWEEN TA PLATES, NEUTRON 30021 1 18
ENERGY VARIED THROUGH INCOMING PROTON BEAM ENERGY 30021 1 19
VARIATION USING TA ABSORBERS 30021 1 20
12 FISSION FRAGMENT MICA DETECTORS WERE PLACED ON 30021 1 21
ROTATING DISC IN FRONT OF SAMPLE. NEUTRON FLUX WAS 30021 1 22
MONITORED THROUGH GAMMA ACTIVITY OF LI TARGET, GAMMA 30021 1 23
ACTIVITY OF CU FOIL PLACED NEAR SAMPLE AND MG MONITOR 30021 1 24
FOR ENERGIES OVER 5 MEV 30021 1 25
(FF) FISSION FRAGMENT COUNTS 30021 1 26
NUMERICAL DATA GIVEN ARE HIGHER THAN PUBLISHED VALUES 30021 1 27
DUE TO IMPROVED ESTIMATE OF GEOMETRICAL FACTORS 30021 1 28
ENERGY SPREAD DUE TO TARGET THICKNESS AND SOLID ANGLE 30021 1 29
WAS ABOUT 450 KEV FOR ENERGY 0.3MEV AND 1.3MEV FOR 30021 1 30
ENERGIES 3-6.5 MEV, NO DETAILS ON DATA ERRORS 30021 1 31
FISSIONING ISOMER WITH HALF-LIFE = 14 MILLI-SEC 30021 1 32
DATA FROM PRIV COMM., N. VILCOV, 1/70. 30021 1 33
(700820C) 30021 1 34
DATA FROM PRIV COM AS GIVEN SUPERSEDE ALL PUBLISHED 30021 1 35
VALUES AND GRAPHS 30021 1 36
ENDBIB      35          0          30021          1          37
NOCOMMON    0          0          30021          1          38
ENDSUBENT   38          0          30021          1          39
SUBENT      30021002          840503          30021          199999
NOBIB
NOCOMMON
DATA
EN          4          9
EN-RSL      4          9
MEV         3.0000E-01 3.5000E+00 3.5000E+00 30021 2 5
3.0000E-01 4.5000E-01 4.8000E+00 1.6000E+00 30021 2 6
5.0000E-01 4.5000E-01 1.5200E+01 2.0000E+00 30021 2 7
9.0000E-01 4.5000E-01 1.5200E+01 2.0000E+00 30021 2 8
1.1000E+00 4.5000E-01 1.5200E+01 2.0000E+00 30021 2 9
1.3500E+00 4.5000E-01 2.0000E+01 3.0000E+00 30021 2 10
1.6000E+00 4.5000E-01 1.4700E+01 3.0000E+00 30021 2 11
3.1000E+00 4.5000E-01 5.3000E+00 1.3000E+00 30021 2 12
6.1000E+00 8.0000E-01 0.0000E+00 5.0000E+00 30021 2 13
6.8000E+00 8.0000E-01 6.7000E+00 5.0000E+00 30021 2 14
8.8000E+00 8.0000E-01 6.7000E+00 5.0000E+00 30021 2 15
ENDDATA
ENDSUBENT   11          0          30021          2          16
ENDENTRY    16          0          30021          299999
ENDTRANS    1          1          30021          999999
Z999999999999

```

```

+TRANS      0 860612
ENTRY      30154 850305
SUBENT     30154001 850305
BIB        15 34
TITLE      EXCITATION OF SHORT-LIVING ISOMERIC ACTIVITIES WITH
           14.5 NEUTRONS
AUTHOR     (E. RURARZ, Z. HARATYM, M. PIETRZYKOWSKI, A. SULIK)
INSTITUTE  (3POLIBJ)
EXP-YEAR   (70)
REFERENCE  (J. APP/B, 1, 415, 70) FULL PAPER, RESULTS CFD THEORY, TABLES
MONITOR    (P. INR-1197, 29, 7005)
INC-SOURCE THE NEUTRON FLUX WAS MONITORED BY COUNTING THE
METHOD      ASSOCIATED ALPHA PARTICLES FROM THE (D,N)HE-4 REACTION
           (D-T) (D,N)ALPHA REACTION
DETECTOR   (ACTIVE) THE ACTIVATION METHOD WAS USED TO MEASURE THE
           (ASSOP) ASSOCIATED ALPHAS WERE USED FOR THE MONITORING.
           (NAICR) NAI(TL) CRYSTAL HARSHAW INTEGRAL LINE DETECTOR
           COUPLED TO 400 CHANNEL ANALYSER.
           (SOLST) SOLID STATE DETECTOR FOR THE DETECTION OF ALPHA
           PARTICLES.
EN-SEC     THE ENERGY GIVEN UNDER 'E' IN THE FOLLOWING SUBENTRIES
COMMENT     IS THE ENERGY OF THE GAMMA TRANSITION
CORRECTION FROM P. DUPONT-SAUTHIER AND AL. CEA-R-2839(1957) FRANCE
ERR-ANALYS ACTIVITIES WERE CORRECTED FOR BACKGROUND, GAMMA RAY
           ATTENUATION IN SAMPLE AND ANALYSER DEAD-TIME
           (DATA-ERR) DATA ERRORS INCLUDE THE UNCERTAINTIES ON =
           . THE COUNTING EFFICIENCY
           . THE PEAK-TO-TOTAL RATIOS
           . THE STATISTICS AND GEOMETRY
           . THE SAMPLE WEIGHT
           . THE NEUTRON FLUX
           . THE CONVERSION COEFFICIENTS
           DATA TAKEN FROM TABLES 1, 2 IN INR-1197
           (720221C) CA.
STATUS      -FINAL PUBLICATION APP/B, 2, 415 ADDED +
HISTORY     (750502A) CA. OTHER BIB-CHANGES.

ENDBIB     34
COMMON      2
EN          EN-RSL 3
MEV         1.4500E+01 2.0000E-01
ENDCOMMON   3
ENDSUBENT   41
SUBENT      30154005 850305
BIB         2
REACTION    (56-BA-137(N,INL)56-BA-137-M,,SIG)
DECAY-DATA  (56-BA-137-M,153.55SEC,DG,661.0,0.099)
           CONVERSION COEFFICIENT = 0.098 FROM HAMILTON ET AL.,
           NUCLEAR DATA, SECTION A, VOL. 1, NR. 6 (1966).

ENDBIB     4
NOCOMMON    0
DATA        2
DATA-ERR    1
MB          1
MB          3.6500E+02 3.6900E+01
ENDDATA     3
ENDSUBENT   0
ENTRY       30183 850305
SUBENT      30183001 840503
BIB         11
TITLE      EXCITATION OF ISOMERIC ACTIVITIES IN BA-131, BA-133,

```

```

0 0
30154 0 0 1 1
30154 1 1 1 1
30154 1 1 2 2
30154 1 1 3 3
30154 1 1 4 4
30154 1 1 5 5
30154 1 1 6 6
30154 1 1 7 7
30154 1 1 8 8
30154 1 1 9 9
30154 1 1 10 10
30154 1 1 11 11
30154 1 1 12 12
30154 1 1 13 13
30154 1 1 14 14
30154 1 1 15 15
30154 1 1 16 16
30154 1 1 17 17
30154 1 1 18 18
30154 1 1 19 19
30154 1 1 20 20
30154 1 1 21 21
30154 1 1 22 22
30154 1 1 23 23
30154 1 1 24 24
30154 1 1 25 25
30154 1 1 26 26
30154 1 1 27 27
30154 1 1 28 28
30154 1 1 29 29
30154 1 1 30 30
30154 1 1 31 31
30154 1 1 32 32
30154 1 1 33 33
30154 1 1 34 34
30154 1 1 35 35
30154 1 1 36 36
30154 1 1 37 37
30154 1 1 38 38
30154 1 1 39 39
30154 1 1 40 40
30154 1 1 41 41
30154 1 1 42 42
30154 1 1 99999 99999
30154 5 5 1 1
30154 5 5 2 2
30154 5 5 3 3
30154 5 5 4 4
30154 5 5 5 5
30154 5 5 6 6
30154 5 5 7 7
30154 5 5 8 8
30154 5 5 9 9
30154 5 5 10 10
30154 5 5 11 11
30154 5 5 12 12
30154 5 5 13 13
30154 5 5 99999 99999
30183 0 0 1 1
30183 1 1 1 1
30183 1 1 2 2
30183 1 1 3 3

```

done this includes FR-108(1968)



BA-135 USING 14.8 MEV NEUTRONS  
 (E. RUKARZ, Z. HARATYM, T. KOZLOWSKI, P. OBLOZINSKY)  
 (3POL1B3)  
 (3CSRSLO) P. OBLOZINSKY  
 (P, INR-1401, 4, 7205) SHORT DESCRIPTION, DISCUSSION, TABLE  
 (J, APP/B, 3, 637, 72) SIMILAR TO INR-1401  
 ABSOLUTE MEASUREMENTS  
 NEUTRON GENERATOR  
 (D-T) T(D,N)ALPHA REACTION  
 (ACTIV) ACTIVATION METHOD  
 (ASSOP) ASSOCIATED PARTICLE, MONITORING WAS PERFORMED  
 BY COUNTING THE ALPHAS FROM THE D-T REACTION  
 (DG) DECAY GAMMAS  
 (GELI, NAICR) 8 CM3 GELI) AND 1.5 \*1 NAI(TL) GAMMA-  
 RAY DETECTORS  
 (SOLST) SOLID STATE DETECTOR TO MONITOR NEUTRON FLUX  
 BY ALPHA-COUNTING  
 PROOF COPY WAS SENT TO AUTHOR (72/10/2)  
 (720914C) CA

HISTORY	20	0	3	30183	1	4
ENDBIB	1	0	3	30183	1	5
COMMON	1	0	3	30183	1	6
EN	1	0	3	30183	1	7
MEV	1.4833E+01	0	3	30183	1	8
ENDCOMMON	3	0	3	30183	1	9
ENDSUBENT	27	0	3	30183	1	10
ENDENTRY	2	1	3	30183	1	11
ENTRY	30338	840530	3	30183	1	12
SUBENT	30338001	840530	3	30183	1	13
BIB	17	32	3	30183	1	14
TITLE	MEASUREMENTS ON THE EXCITATION CROSS SECTIONS OF ISOMERIC STATES BY SCATTERING OF 2.8 MEV NEUTRONS (P. BORNEMISZA-PAUSPERTL, J. KAROLYI, G. PETO) (3HUNDEB)		3	30183	1	15
AUTHOR	(J, AK, 10, 12), 112, 6807)		3	30183	1	16
INSTITUTE	(68)		3	30183	1	17
EXP-YEAR	NO INFORMATION GIVEN		3	30183	1	18
REFERENCE	THE CROSS SECTIONS OF THE MONITOR REACTIONS ARE TAKEN FROM K.G. BROADHEAD, D.E. SHANS, INT. J. APPL. RAD. ISOT. 18, 279 (1967) WITH RELATED HALF-LIVES TAKEN FROM NUCL. DATA SHEETS (1961).		3	30183	1	19
SAMPLE	(CCW) 240 KEV CASCADE GENERATOR		3	30183	1	20
MONITOR	(D-D) DEUTERON-DEUTERIUM		3	30183	1	21
FACILITY	(ACTIV) ACTIVATION		3	30183	1	22
INC-SOURCE	(NAICR) NAI(TL) DETECTOR FOR DECAY GAMMAS		3	30183	1	23
METHOD	(SCIN) ORGANIC SCINTILLATOR WITH REDUCED GAMMA-BACKGROUND FOR FLUX MONITORING AT LONG IRRADIATIONS. AT SHORT IRRADIATIONS FLUX MONITORED FROM PULSES DUE TO GAMMAS OF OVER 2 MEV.		3	30183	1	24
DETECTOR	THE EFFECT DUE TO THERMAL AND EPITHERMAL NEUTRONS WAS NEGLIGIBLE.		3	30183	1	25
CORRECTION	ERRORS GIVEN DO NOT CONTAIN THE ERRORS OF MONITOR REACTION CROSS SECTIONS AND INTERNAL CONVERSION COEFFICIENTS.		3	30183	1	26
ERR-ANALYS	THE HALF-LIFE VALUES USED FOR CALCULATIONS ARE TAKEN FROM NUCL. DATA SHEETS (1961)		3	30183	1	27
HALF-LIFE	THE INTERNAL CONVERSION COEFFICIENTS ARE TAKEN FROM TABLE DES ISOMERES, REPORT CEA-R 2330.		3	30183	1	28
COMMENT	DATA TAKEN FROM ATOMKI KOZL. 10, 2, 112 (1958).		3	30183	1	29
STATUS	(APRVD) APPROVED BY BORNEMISZA, 76/10/29.		3	30183	1	30
HISTORY	(760011C) OS.		3	30183	1	31
ENDBIB	(771201U) STATUS 'APRVD' ADDED		3	30183	1	32
COMMON	32	0	3	30183	1	33
	2	3	3	30183	1	34
			3	30183	1	35
			3	30183	1	36

*cross reference to table*

EN-RSL  
 MEV  
 2.8000E+00 4.0000E-01  
 ENDCOMMON 3  
 ENDSUBENT 39  
 SUBENT 30338006  
 5 8405307  
 5 7  
 56-BA-137(N,INL)56-BA-137-M,(SIG)  
 (48-CD-111(N,INL)48-CD-111-M,(SIG)  
 HALF-LIFE USED = 49 MIN  
 HALF-LIFE USED = 2.6 MIN  
 (HL,56-BA-137-M) VALUE USED = 0.11 FOR 660 KEV GAMMA  
 INT. CONVERSION COEFF. = 0.11 FOR CONTRIBUION OF  
 OBTAINED CROSS SECTION CONTAINS REACTION (SMALLER THAN 20 MB).  
 CORRECTION BA-136(N,GAMMA) REACTION (SMALLER THAN 20 MB).

30338 1 37  
 30338 1 38  
 30338 1 39  
 30338 1 40  
 30338 1 199999  
 30338 6 2  
 30338 6 3  
 30338 6 4  
 30338 6 5  
 30338 6 6  
 30338 6 7  
 30338 6 8  
 30338 6 9  
 30338 6 10  
 30338 6 11  
 30338 6 12  
 30338 6 13  
 30338 6 14  
 30338 6 15  
 30338 6 16  
 30338 6 199999  
 30338 6 199999  
 30348 1 1  
 30348 1 2  
 30348 1 3  
 30348 1 4  
 30348 1 5  
 30348 1 6  
 30348 1 7  
 30348 1 8  
 30348 1 9  
 30348 1 10  
 30348 1 11  
 30348 1 12  
 30348 1 13  
 30348 1 14  
 30348 1 15  
 30348 1 16  
 30348 1 17  
 30348 1 18  
 30348 1 19  
 30348 1 20  
 30348 1 21  
 30348 1 22  
 30348 1 23  
 30348 1 24  
 30348 1 25  
 30348 1 26  
 30348 1 27  
 30348 1 28  
 30348 1 29  
 30348 1 30  
 30348 1 31  
 30348 1 32  
 30348 1 33  
 30348 1 34  
 30348 1 35  
 30348 1 36  
 30348 1 37  
 30348 1 38  
 30348 1 39  
 30348 1 40

ENDBIB  
 NOCOMMON  
 DATA DATA  
 DATA 4.3400E+02 3.0000E+01 2.7700E+02 1.3000E+01 2.6000E+00  
 ENDDATA 15 1 1  
 ENDSUBENT 2 840530 1  
 ENTRY 30348 840530  
 SUBENT 13 43  
 BIB  
 TITLE  
 STUDY OF SOME SYSTEMATIC TRENDS AND NON-EQUILIBRIUM  
 EFFECTS IN (N,2N) REACTIONS FOR NUCLEI FAR FROM THE  
 SYMMETRY LINE.  
 (E.HOLUB,N.CINDRO)  
 (3YUGRBZ)  
 (3CSRSL0) IN COLLABORATION FOR IN-113(N,2N) TOT+ISOM.  
 (J,JP/G,2.405,7606)  
 (J,ASL,25,180,75) SAME AS JP/G BUT NO IN-113(N,2N)  
 (J,NP,30,49,6202) EXFOR30008. MORE NUCLIDE, DIFFERENT  
 RESULTS BY STROHAL,CINDRO AND EMAN. NB(2)-(0(5); BA-0(2)30348  
 SAMPLES IN POWDER FORM OF SR-CO(3); IN ENRICHED FOIL(87.330348  
 AND A NATURAL INDIUM) THEY WERE USED IN THE MIXED POWDER  
 PERCENT ENRICHMENT). THEY WERE USED WITH ALUMINIUM OR FE AS  
 AND SANDWICH METHOD TOGETHER WITH ALUMINIUM OR FE AS

AUTHOR  
 INSTITUTE  
 REFERENCE  
 SAMPLE  
 MONITOR  
 FACILITY  
 INC-SOURCE  
 METHOD  
 DETECTOR  
 ERR-ANALYS  
 ING OF THE SAMPLES AND IN TIMING WERE ALSO CONSIDERED.

(D-T) H-3(D,N)HE-4  
 (D-T) H-3(D,N)HE-4  
 (ACTIV) ACTIVATION  
 (GELI) 20 CM3 GELI) DETECTOR WITH 3.5 KEV RESOLUTION  
 AT 1332 KEV, FOR MEASUREMENT PERFORMED IN ZAGREB.  
 AT 1332 KEV, FOR MEASUREMENT WITH 2.9 KEV FWHM AT 1332 KEV  
 25 CM3 GELI) DETECTOR IN BRATISLAVA.  
 FOR MEASUREMENT IN BRATISLAVA.  
 (NAICR) 170 100 \* 100 MM THICK NAT(TL) CRYSTALS IN  
 COINCIDENCE AND A GELI) DETECTOR WERE USED FOR  
 ISOMERIC CROSS-SECTION RATIO. DUE TO STATISTIC, THE  
 (DATA-ERR) ERRORS QUOTED ARE EFFICIENCY OF THE DETECTOR  
 UNCERTAINTY IN REL. PHOTOPEAK STANDARD. ERRORS IN WEIGH-  
 AND THE UNCERTAINTY IN THE STANDARD. ERRORS IN WEIGH-  
 AND THE UNCERTAINTY IN THE STANDARD. ERRORS IN WEIGH-

30338 1 37  
 30338 1 38  
 30338 1 39  
 30338 1 40  
 30338 1 199999  
 30338 6 2  
 30338 6 3  
 30338 6 4  
 30338 6 5  
 30338 6 6  
 30338 6 7  
 30338 6 8  
 30338 6 9  
 30338 6 10  
 30338 6 11  
 30338 6 12  
 30338 6 13  
 30338 6 14  
 30338 6 15  
 30338 6 16  
 30338 6 199999  
 30338 6 199999  
 30348 1 1  
 30348 1 2  
 30348 1 3  
 30348 1 4  
 30348 1 5  
 30348 1 6  
 30348 1 7  
 30348 1 8  
 30348 1 9  
 30348 1 10  
 30348 1 11  
 30348 1 12  
 30348 1 13  
 30348 1 14  
 30348 1 15  
 30348 1 16  
 30348 1 17  
 30348 1 18  
 30348 1 19  
 30348 1 20  
 30348 1 21  
 30348 1 22  
 30348 1 23  
 30348 1 24  
 30348 1 25  
 30348 1 26  
 30348 1 27  
 30348 1 28  
 30348 1 29  
 30348 1 30  
 30348 1 31  
 30348 1 32  
 30348 1 33  
 30348 1 34  
 30348 1 35  
 30348 1 36  
 30348 1 37  
 30348 1 38  
 30348 1 39  
 30348 1 40

STATUS DATA FROM TABLE 3 OF J.PHYS.2G(1976)405. AND THE  
 (APRVD) APPROVED BY HOLUB, 77/01/14. COMPILER'S NOTE IN SUB-ENTRY .006 WAS CONFIRMED.  
 HISTORY (760907C) KO. (770324U) KO. - 'APPROVED' ADDED. -

ENDBIB	COMMON	EN	MONIT3	MEV	MB	MONIT1	MONIT1-ERR	MONIT2	MONIT2-ERR	30348	1	41
1.4600E+01	3.0000E-01	7.3000E+01	5.0000E+00	1.1400E+02	6.0000E+00	30348	1	51	52	30348	1	47
1.0000E+02	6.0000E+00					30348	1	50	53	30348	1	46
ENDCOMMON	6					30348	1	54	54	30348	1	45
ENDSUBENT	53					30348	199999			30348	1	44
SUBENT	30348019	840530				30348	18			30348	1	43
BIB	3					30348	18			30348	1	42
REACTION	(56-BA-138(N,2N)56-BA-135-M,,SIG)					30348	18			30348	1	41
PART-DET	(DG) DECAY GAMMA OF 268KEV, P=100PERC, INT.CONV. COEF=5.2530348					30348	18			30348	1	40
HALF-LIFE	(HL,56-BA-135-M) = 28.7 HR					30348	18			30348	1	39
ENDBIB	3					30348	18			30348	1	38
NOCOMMON	0					30348	18			30348	1	37
DATA	3					30348	18			30348	1	36
DATA	HL					30348	18			30348	1	35
DATA	HR					30348	18			30348	1	34
MB	1.0530E+03	3.6000E+01	2.3700E+01			30348	18			30348	1	33
ENDDATA	3					30348	18			30348	1	32
ENDSUBENT	11					30348	18			30348	1	31
ENTRY	2					30348	18999999			30348	1	30
SUBENT	30433	850121	1			30348	0			30433	1	29
BIB	30433001	850121	39			30433	1			30433	1	28
TITLE	15					30433	1			30433	1	27
AUTHOR	SOME NEUTRON ACTIVATION CROSS SECTIONS IN BARIUM ISOTOPES AT 14 MEV. (N.LAKSHMANA DAS,C.V.SRINIVASA RAO,B.V.THIRUMALA RAO, J.RAMA RAO) (3INDAUM) (C,76AHMEDDABA,2,(19B),113,7612) (P,INDC(SEC)-61,121,7710) BA-138(N,A),(N,2N),NO DATA. (J,NC/A,48,(2),500,7812) ALSO BA138(N,2N),TA181(N,2N) SEE EXFOR 30433,002, 30471.004 (J,JP/G,6,1045-1048,8006) NATURAL. (CCW,3INDAUM)											
INSTITUTE	RESOLUTION OF INCIDENT NEUTRON ENERGY IS NOT GIVEN. (ACTIV) ACTIVATION. MIXED POWDER TECHNIQUE WITH A LARGE VOLUME GELI) DETECTOR. (GELI) LARGE VOLUME HIGH RESOLUTION GELI) DETECTOR. (DG) INTERNAL TRANSITION. ROOT-MEAN-SQUARE CORRESPONDING TO -ERROR IN THE REL. PHOTO PEAK EFF.=3 PERCENT(ESTIMATE) -ERROR IN THE DETERMINATION OF PHOTOPEAK=STAN.DEV.OF COUNT.											
REFERENCE	ERRORS DUE TO THE DEAD-TIME LOSS,NO.OF NUCLEI,IRRADIATION AND COUNTING TIMES ARE NEGLIGIBLE. THE ERRORS IN MONITOR CROSS-SECTIONS, HALF-LIVES AND ABSOLUTE GAMMA RAY ABUNDANCES WERE NOT INCLUDED. ==NOTE FROM THE AUTHOR,79/08/02, ENERGY OF INCIDENT NEUTRON = 14.2+- 0.2 MEV,== DATA FROM A TABLE OF PROC. NUCL.PHYS.AND SOLID STATE PHYS.SYMP.,AHMEDABAD, DEC.27-31,1976,VOL19B(NUCL.PHYS) P.18. (APRVD)APPROVED BY LAKSHMANA DAS,790802,USE OF MONITORS30433											
SAMPLE												
FACILITY												
INC-SOURCE												
INC-SPECT												
METHOD												
DETECTOR												
PART-DET												
ERR-ANALYS												
COMMENT												
STATUS												

data has included errors till 2

HISTORY	CLARIFIED.					
	(780331C) KO.	30433	1	35		
	(790412U) KO.-SUBENT .002 IS SUPERSEDED BY 30471.002-	30433	1	36		
	(800118A) MD.-CORRECTION OF INC.ENERGY, MONITOR, AND	30433	1	37		
	ADDED 1 REF.-	30433	1	38		
	(810112U) MD. ERROR-ANALYSIS AND 1 REF. ADDED	30433	1	39		
ENDBIB		30433	1	40		
COMMON		30433	1	41		
EN	EN-RSL	30433	1	42		
MEV	2.00000E-01	30433	1	43		
		30433	1	44		
		30433	1	45		
		30433	1	46		
ENDCOMMON		19999	3	99		
ENDSUBENT						
SUBENT	30433003	30433	3	1		
		30433	3	2		
		30433	3	3		
		30433	3	4		
		30433	3	5		
		30433	3	6		
		30433	3	7		
		30433	3	8		
		30433	3	9		
		30433	3	10		
		30433	3	11		
		30433	3	12		
		30433	3	13		
		30433	3	14		
		30433	3	15		
		30433	3	16		
		30433	3	17		
		30433	3	18		
		30433	3	19		
		30433	3	20		
		30471	1	21		
		30471	1	22		
		30471	1	23		
		30471	1	24		
		30471	1	25		
		30471	1	26		
		30471	1	27		
		30471	1	28		
		30471	1	29		
		30471	1	30		
		30471	1	31		
		30471	1	32		
		30471	1	33		

from this material, 28105 MBP

(11-NA-24, 15.HR.DG, 1368.)  
 DATA FROM J.C.ROBERTSON ET AL., J. NUCLEAR ENERGY, 27(1973)531.  
 (56-BA-135(N, 2N)56-BA-135-M., SIG)  
 (56-BA-135-M, 28.7HR. DG, 268.)  
 (13-AL-27(N, A)11-NA-24., SIG)  
 DATA FROM J.C.ROBERTSON ET AL., J. NUCLEAR ENERGY, 27(1973)531.  
 (11-NA-24, 15.HR.DG, 1368.)  
 ENDBIB  
 NOCOMMON  
 DATA  
 DATA-ERR  
 MB  
 1.02300E+03 9.80000E+01  
 ENDDATA  
 ENDSUBENT  
 ENDENTRY  
 ENTRY 30471 850121  
 SUBENT 30471001 850121  
 BIB 15 44  
 TITLE GE(LI) MEASUREMENT OF SOME NEUTRON ACTIVATION CROSS-SECTIONS AT (14.2+-0.2) MEV (N.LAKSHMANA DAS, C.V. SRINIVASA RAO, B.V. THIRUMALA RAO, J.RAMA RAO) (3INDAUW)  
 INSTITUTE (J, NC/A, 43, (4), 500, 7812)  
 REFERENCE (C, 75CALCOTTA, 2, (18E), 31, 7512) SAME RESULT FOR TA181(N2N)  
 (C, 76AHMEDSABA, 2, (19B), 113, 7612) PRELIM. FOR BA138(N2N).  
 (J, JP/G, 6, 1045-1048, 8006)  
 (13-AL-27(N, A)11-NA-24., SIG) =115.5+-3 MB, T(1/2)=15HR, J.C.ROBERTSON ET AL., J. NUCL. ENERGY, 27(1973)53,  
 (13-AL-27(N, P)12-MG-27., SIG) =72+-5 MB, T(1/2)=9.5MIN, RESULT BY THE AUTHORS. (NO FURTHER INFORMATION).  
 (29-CU-65(N, 2N)29-CU-64., SIG)=926+-60 MB, T(1/2)=12.7H, S.M.GAIM, NUCL. PHYS. 185A(1972)614.  
 NATURAL, SPECIFIC METALLIC OR OXIDE FORM OF THE SAMPLE WITH PURITY BETTER THAN 99.9PERC. (SUPPLIED BY KOCH-LIGHT LABORATORIES)  
 (CCW, 3INDAUW) 600 KEV COCKROFT-WALTON ACCELERATOR.  
 (D-T)  
 N-FLUX WAS OF THE ORDER OF 10E+8 N/CM2/SEC.  
 (ACTIV, MIX)  
 MIXED-POWDER TECHNIQUE WITH A HIGH-RESOLUTION GE(LI) DETECTOR.  
 (GELI)  
 35CM3 HIGH-RESOLUTION CO-AXIAL GE(LI) DETECTOR(FWHM 4.630471 AT 1332KEV), IN CONJUNCTION WITH A ND 512 CHANNEL ANALYSER SYSTEM.  
 N-FLUX WAS MONITORED WITH A B COUNTER.  
 (DG)

CORRECTION CORRECTED FOR SELF-ABSORPTION AND SCATTERING WITHIN THE SAMPLE.  
 ERR-ANALYS ROOT-MEAN-SQUARE ERROR CORRESPONDING TO.  
 . ERROR IN THE REL. PHOTO PEAK EFF. = 3 PERCENT (ESTIMATE)  
 . ERROR IN DETERMINATION OF PHOTO-PEAK-STAN. DEV. OF COUNT  
 . ERRORS DUE TO THE DEAD-TIME LOSS, NUMBER OF NUCLEI,  
 AND COUNTING- AND IRRADIATION-TIME ARE NEGLIGIBLE.  
 THE ERRORS IN MONITOR CROSS-SECTIONS, HALF-LIVES AND  
 ABSOLUTE GAMMA-RAY ABUNDANCES WERE NOT INCLUDED.  
 (APRVD) APPROVED BY LAKSHMANA DAS, 790802.  
 (740412C) KO.  
 (800119U) ND.=APRVD AND MONITORS ADDED TO .0022 AND .0043  
 (810112U) ND.-ADDED 1 REF.-

ENDBR	COMMON	MONIT1	ERR	MONIT2	ERR	MONIT3	ERR
1	1.1550E+02	3.0000E+00	7.2000E+01	5.0000E+00	9.2600E+02	5.0000E+01	130471
2	30471	30471	30471	30471	30471	30471	30471
3	30471	30471	30471	30471	30471	30471	30471
4	30471	30471	30471	30471	30471	30471	30471
5	30471	30471	30471	30471	30471	30471	30471
6	30471	30471	30471	30471	30471	30471	30471
7	30471	30471	30471	30471	30471	30471	30471
8	30471	30471	30471	30471	30471	30471	30471
9	30471	30471	30471	30471	30471	30471	30471
10	30471	30471	30471	30471	30471	30471	30471
11	30471	30471	30471	30471	30471	30471	30471
12	30471	30471	30471	30471	30471	30471	30471
13	30471	30471	30471	30471	30471	30471	30471
14	30471	30471	30471	30471	30471	30471	30471
15	30471	30471	30471	30471	30471	30471	30471
16	30471	30471	30471	30471	30471	30471	30471
17	30471	30471	30471	30471	30471	30471	30471
18	30471	30471	30471	30471	30471	30471	30471
19	30471	30471	30471	30471	30471	30471	30471
20	30471	30471	30471	30471	30471	30471	30471
21	30471	30471	30471	30471	30471	30471	30471
22	30471	30471	30471	30471	30471	30471	30471
23	30471	30471	30471	30471	30471	30471	30471
24	30471	30471	30471	30471	30471	30471	30471
25	30471	30471	30471	30471	30471	30471	30471
26	30471	30471	30471	30471	30471	30471	30471
27	30471	30471	30471	30471	30471	30471	30471

REACTON (56-BA-133(N,2N)56-BA-137-M, SIG)  
 DECAY-DATA (56-BA-137-M, 2.6MIN, DG, 662., 0.85)  
 MONITOR (13-AL-27(N,P)12-MG-27, SIG) = 72+-5 MB, T(1/2)=9.5 MIN, 30471  
 STATUS DATA FROM TABLE 1 OF NUOVO CIMENTO, 48A(1978)500.  
 THIS RESULT REPLACES EXFOR30433.002

ENDBR	NOCOMMON	DATA	ERR	MONIT1	ERR	MONIT1-ERR
1	1.4200E+01	2.0000E-01	1.0660E+03	5.5000E+01	7.2000E+01	5.0000E+00
2	30557	30557	30557	30557	30557	30557
3	30557	30557	30557	30557	30557	30557
4	30557	30557	30557	30557	30557	30557
5	30557	30557	30557	30557	30557	30557
6	30557	30557	30557	30557	30557	30557
7	30557	30557	30557	30557	30557	30557
8	30557	30557	30557	30557	30557	30557
9	30557	30557	30557	30557	30557	30557
10	30557	30557	30557	30557	30557	30557
11	30557	30557	30557	30557	30557	30557
12	30557	30557	30557	30557	30557	30557
13	30557	30557	30557	30557	30557	30557
14	30557	30557	30557	30557	30557	30557
15	30557	30557	30557	30557	30557	30557
16	30557	30557	30557	30557	30557	30557
17	30557	30557	30557	30557	30557	30557
18	30557	30557	30557	30557	30557	30557
19	30557	30557	30557	30557	30557	30557
20	30557	30557	30557	30557	30557	30557
21	30557	30557	30557	30557	30557	30557
22	30557	30557	30557	30557	30557	30557
23	30557	30557	30557	30557	30557	30557
24	30557	30557	30557	30557	30557	30557
25	30557	30557	30557	30557	30557	30557
26	30557	30557	30557	30557	30557	30557
27	30557	30557	30557	30557	30557	30557

INSTITUTE (J,JP/G,6,1045,0006)  
 REFERENCE SEE EXFOR 30433 FOR BA-138(N,A) AND BA-136(N,2N)  
 MONITOR (29-CU-63(N,2N)29-CU-62, SIG)=593+-36MB, T(1/2)=9.8 MIN, 30557  
 (29-CU-65(N,2N)29-CU-64, SIG)=926+-60MB, T(1/2)=12.8 H, 30557  
 S.M.QAIM, NUCL.PHYS.A, 185(1972)614, 30557  
 SPECURE BARIUM IN THE FORM OF BAC63 MIXED WITH SPEC- 30557  
 PURE CU METAL POWDER WHICH SERVED AS THE MONITOR. 30557  
 PURITY OF POWDERS GREATER THAN 99.9 PERC. 30557  
 (CCW, 3INDAUV) 500 KEY COCKCROFT-WALTON ACCELERATOR. 30557  
 (D-T) N-FLUX WAS OF THE ORDER OF 10E+8 N/CM2/SEC. 30557  
 (ACTIV, MO-IX) (GELI) 30557  
 35CM3 HIGH-RESOLUTION CO-AXIAL GELI) DETECTOR(FWHM= 30557  
 4.6 AT 1032 KEV) USED IN CONDUCTION WITH A ND-512 MUL-30557  
 TI CHANNEL ANALYSER. 30557  
 N-FLUX WAS MONITORED WITH A BFC COUNTER. 30557  
 CORRECTED FOR SELF-ABSORPTION AND SCATTERING WITHIN 30557  
 THE SAMPLE. 30557  
 ROOT-MEAN-SQUARE ERROR CORRESPONDING TO 30557

AUTHOR (N.LAKSHMANA DAS, C.V. SRINIVASA RAO, B.V. THIRUMALA RAO, J.RAMA RAO)  
 TITLE NEUTRON ACTIVATION CROSS SECTIONS IN SOME BARIUM ISOTOPES AT 14.2 MEV.  
 INSTITUTE (J,JP/G,6,1045,0006)  
 REFERENCE SEE EXFOR 30433 FOR BA-138(N,A) AND BA-136(N,2N)  
 MONITOR (29-CU-63(N,2N)29-CU-62, SIG)=593+-36MB, T(1/2)=9.8 MIN, 30557  
 (29-CU-65(N,2N)29-CU-64, SIG)=926+-60MB, T(1/2)=12.8 H, 30557  
 S.M.QAIM, NUCL.PHYS.A, 185(1972)614, 30557  
 SPECURE BARIUM IN THE FORM OF BAC63 MIXED WITH SPEC- 30557  
 PURE CU METAL POWDER WHICH SERVED AS THE MONITOR. 30557  
 PURITY OF POWDERS GREATER THAN 99.9 PERC. 30557  
 (CCW, 3INDAUV) 500 KEY COCKCROFT-WALTON ACCELERATOR. 30557  
 (D-T) N-FLUX WAS OF THE ORDER OF 10E+8 N/CM2/SEC. 30557  
 (ACTIV, MO-IX) (GELI) 30557  
 35CM3 HIGH-RESOLUTION CO-AXIAL GELI) DETECTOR(FWHM= 30557  
 4.6 AT 1032 KEV) USED IN CONDUCTION WITH A ND-512 MUL-30557  
 TI CHANNEL ANALYSER. 30557  
 N-FLUX WAS MONITORED WITH A BFC COUNTER. 30557  
 CORRECTED FOR SELF-ABSORPTION AND SCATTERING WITHIN 30557  
 THE SAMPLE. 30557  
 ROOT-MEAN-SQUARE ERROR CORRESPONDING TO 30557

*from the inside 86150 7/11/5*

-ERROR IN THE REL. PHOTO PEAK EFF.=3 PERCENT(ESTIMATE)30557 1 1 28  
 -ERROR IN DETERMINATION OF PHOTOPEAK=STAN.DEV.OF COUNT30557 1 1 29  
 .ERRORS DUE TO THE DEAD-TIME LOSS,NO.OF NUCLEI,IRRADI-30557 1 1 30  
 ATION AND COUNTING TIMES ARE NEGLIGIBLE. 30557 1 1 31  
 .THE ERRORS IN MONITOR CROSS-SECTIONS,HALF-LIVES AND 30557 1 1 32  
 ABSOLUTE GAMMA-RAY ABUNDANCES WERE NOT INCLUDED. 30557 1 1 33

STATUS (810112) ND. 30557 1 1 34  
 HISTORY 33 30557 1 1 35  
 ENDBIB 2 30557 1 1 36  
 COMMON 3 30557 1 1 37  
 EN-ERR 30557 1 1 38  
 EN MEV 30557 1 1 39  
 1.4200E+01 2.0000E-01 30557 1 1 40  
 ENDCOMMON 3 30557 1 1 41  
 ENDSUBENT 40 0 30557 1 1 41  
 SUBENT 30557002 840911 5 30557 199999 1 1 41  
 BIB 3 5 30557 2 2 1  
 REACTION (56-BA-138(N,P)55-CS-138(A,SIG) 30557 2 2 2  
 (55-CS-138-G,33,AMIN,DG,463.;0.27) 30557 2 2 2  
 W.W.BOWMAN,K.W.MACMURDO,ATOMIC AND NUCL.DATA TABLES, 30557 2 2 2  
 13(1974)89. 30557 2 2 2  
 DATA FROM TABLE 2 OF J.OF PHYS.G,6(1980)1045. 30557 2 2 2  
 STATUS ENDBIB 0 30557 2 2 2  
 NOCOMMON 0 30557 2 2 2  
 DATA DATA-ERR 2 30557 2 2 2  
 DATA 1 30557 2 2 2  
 MB 30557 2 2 2  
 2.3000E+00 3.0000E-01 30557 2 2 11  
 ENDDATA 3 30557 2 2 12  
 ENDSUBENT 13 0 30557 2 2 13  
 ENENTRAN 1 1 30557 2 2 14  
 ENDRANS 3 1 30557 299999 1 1 14  
 Z999999999999999 305579999999999 1 1 14  
 Z999999999999999 2999999999999999 1 1 14

+TRANS	ENTRY	30224	860620	30224	0	0	1
ENTRY	30224	840510	30224	0	0	1	1
SUBENT	30224001	840510	30224	1	1	1	1
BIB	14	30	30224	1	2	2	2
TITLE	14	30	30224	1	3	3	3
AUTHOR	NEUTRON CROSS SECTIONS OF PR, YB, LU, ER, HO AND TM. R.L.ZIMMERMAN,L.Q.AMARAL,R.FULFARO,M.C.MATTOS,M.ABREU, R.STASIULEVICIUS)			30224	1	4	4
INSTITUTE	R.STASIULEVICIUS)			30224	1	5	5
REFERENCE	R.STASIULEVICIUS)			30224	1	6	6
	(J,NP/A,95,683,6704) FULL REPORT, CONTAINS ALL RESULTS			30224	1	7	7
	(C,66PARIS,1,53,6610) SAME AS NP A95 683 (1967)			30224	1	8	8
	(C,64GENEVA,7,82,6405) SHORT REMARK ONLY			30224	1	9	9
	(C,63PAULO,2,133,6311) SAME AS IEA-86, DETAILED REPORT			30224	1	10	10
	(C,62MEXICO,1,55,6204) SAME AS IEA-51,			30224	1	11	11
	(R,IEA-86,6311) SAME AS 63PAULO PAPER, TABLE + GRAPHS			30224	1	12	12
	(R,IEA-75,6411) ENGLISH TRANSLATION OF IEA-51			30224	1	13	13
	(R,IEA-51,6206) PORTUGUESE, TABLES + GRAPHS			30224	1	14	14
	HIGH PURITY POWDER OXIDES			30224	1	15	15
SAMPLE	CRYSTAL SPECTROMETER			30224	1	16	16
FACILITY	(SELVE) MECHANICAL MONOCHROMATOR			30224	1	17	17
INC-SOURCE	REACTOR			30224	1	18	18
METHOD	TRANSMISSION			30224	1	19	19
PART-DET	NEUTRONS			30224	1	20	20
CORRECTION	TO THE CROSS SECTIONS DUE TO THE PRESENCE OF SECOND ORDER REFLECTION FROM THE MONOCHROMATOR CRYSTAL WAS MADE EXPERIMENTALLY BY MEASURING THE WELL KNOWN GOLD CROSS SECTION IN AN APPROPRIATE ENERGY INTERVAL.			30224	1	21	21
	NO INFORMATION GIVEN			30224	1	22	22
	SIG TOT = SIG.SCATT. + SIG ABSORPT. + SIG PARAMAGNETIC DIFFERENT ENERGY DEPENDENCE OF PARTIAL CROSS SECTIONS USED IN ANALYSIS.			30224	1	23	23
ERR-ANALYS	THE SCATTERING CROSS SECTION WAS ASSUMED TO BE CONSTANT IN THE CONSIDERED ENERGY RANGE.			30224	1	24	24
ANALYSIS	DATA FROM PRIV COM AMARAL, 1968 (721214T) CONVERSION OF DASTAR 540-545			30224	1	25	25
HISTORY	30			30224	1	26	26
ENDBIB	33			30224	1	27	27
NOCOMMON	840510			30224	1	28	28
ENDSUBENT	1999999			30224	1	29	29
SUBENT	30224005			30224	1	30	30
BIB	10			30224	1	31	31
REACTION	(59-PR-141(N,SCT)59-PR-141,,SIG)			30224	1	32	32
ANALYSIS	NEAR 1 EV THE TOTAL CROSS SECTION WAS USED TO DETERMINE THE NUCLEAR SCATTERING CROSS SECTION.			30224	1	33	33
COMMENT	THE NUCLEAR SCATTERING CROSS SECTION LISTED HERE IS NOT TO BE INTERPRETED AS THE POTENTIAL SCATTERING. INTERFERENCE WITH RESONANCE SCATTERING MAY GIVE SCATTERING LARGER OR SMALLER THAN THE POTENTIAL SCATTERING BY AN AMOUNT DEPENDENT ON THE PARAMETERS OF RESONANCES AND BOUND STATES, WHICH ARE NOW INSUFFICIENTLY WELL KNOWN.			30224	1	34	34
	10			30224	5	35	35
	10			30224	5	36	36
	10			30224	5	37	37
	10			30224	5	38	38
	10			30224	5	39	39
	10			30224	5	40	40
	10			30224	5	41	41
	10			30224	5	42	42
	10			30224	5	43	43
	10			30224	5	44	44
	10			30224	5	45	45
	10			30224	5	46	46
	10			30224	5	47	47
	10			30224	5	48	48
	10			30224	5	49	49
	10			30224	5	50	50
	10			30224	5	51	51
	10			30224	5	52	52
	10			30224	5	53	53
	10			30224	5	54	54
	10			30224	5	55	55
	10			30224	5	56	56
	10			30224	5	57	57
	10			30224	5	58	58
	10			30224	5	59	59
	10			30224	5	60	60
	10			30224	5	61	61
	10			30224	5	62	62
	10			30224	5	63	63
	10			30224	5	64	64
	10			30224	5	65	65
	10			30224	5	66	66
	10			30224	5	67	67
	10			30224	5	68	68
	10			30224	5	69	69
	10			30224	5	70	70
	10			30224	5	71	71
	10			30224	5	72	72
	10			30224	5	73	73
	10			30224	5	74	74
	10			30224	5	75	75
	10			30224	5	76	76
	10			30224	5	77	77
	10			30224	5	78	78
	10			30224	5	79	79
	10			30224	5	80	80
	10			30224	5	81	81
	10			30224	5	82	82
	10			30224	5	83	83
	10			30224	5	84	84
	10			30224	5	85	85
	10			30224	5	86	86
	10			30224	5	87	87
	10			30224	5	88	88
	10			30224	5	89	89
	10			30224	5	90	90
	10			30224	5	91	91
	10			30224	5	92	92
	10			30224	5	93	93
	10			30224	5	94	94
	10			30224	5	95	95
	10			30224	5	96	96
	10			30224	5	97	97
	10			30224	5	98	98
	10			30224	5	99	99
	10			30224	5	100	100

CAPTURE CROSS SECTION OF 14 MEV NEUTRONS.  
(M.MAJUMDER, B.MITRA)  
(31NDBOS)

FACILITY	(CCW) COCKROFT-WALTON ACCELERATOR, H.T. WAS STABILIZED	30296	1	6				
INC-SOURCE	AND VOLTAGE VARIATION WAS WITHIN +-0.1 PERC. OVER 150KV	30296	1	7				
	(D-T) DEUTERON-TRITIUM,	30296	1	8				
	TO MINIMIZE SCATTERING, MATERIAL NEARBY, LIQUID COOLANT	30296	1	9				
	IN THE TARGET WAS DISPENSED WITH AND FORCED AIR COOLING	30296	1	10				
	WAS USED. AND NO EXTRA BACKING WAS USED FOR THE THIN	30296	1	11				
	COPPER DISC OF THE T1-T TARGET FOIL.	30296	1	12				
INC-SPECT	NEUTRON ENERGY OF 14.8 +- 0.08 MEV AND THE FLUX WAS	30296	1	13				
	CONSTANT TO A DEVIATION OF +- 5 PERCENT.	30296	1	14				
METHOD	(ACTIV) ACTIVATION.	30296	1	15				
	. REFERENCE FOR THE CITED HALF-LIFE IS NOT GIVEN.	30296	1	16				
DETECTOR	(COMPLER)	30296	1	17				
	END WINDOW G-M COUNTER OF 2.4 MG/CM2 WINDOW THICKNESS.	30296	1	18				
	. HEAVILY BIASED PLASTIC SCINTILLATOR DETECTOR MONITORED	30296	1	19				
PART-DET	NEUTRON FLUX	30296	1	20				
CORRECTION	(B-) DECAY BETA-	30296	1	21				
	CORRECTION FOR THICK-SAMPLE BETA-COUNTING, INCLUDING	30296	1	22				
	SELF-ABSORPTION AND SELF-SCATTERING IN THE SAMPLE.	30296	1	23				
	===COMPLER'S NOTE===	30296	1	24				
ERR-ANALYS	NO CORRECTION FOR THE INFLUENCE OF LOWER	30296	1	25				
SAMPLE	ENERGY NEUTRONS (FROM SCATTERING INSIDE THE SAMPLE	30296	1	26				
	AND ACCELERATOR TARGET) ON THE CROSS SECTION IS	30296	1	27				
	MENTIONED. THIS EFFECT COULD POSSIBLY ACCOUNT FOR	30296	1	28				
	THE DISCREPANCY E.G. IN THE I-127 CROSS SECTION	30296	1	29				
	(THIS WORK 2.74 MB, SEVERAL OTHER AUTHORS ABOUT 1.1	30296	1	30				
	MB). SEE E.G. PHYS.LETT.398,1972,625, NUOVO CIM.LETT.	30296	1	31				
	10,1974,1, NUCL.PHYS.A264,1976,105. (1978/02/24)	30296	1	32				
	STATISTICAL ERROR ONLY IS GIVEN. BUT	30296	1	33				
	SYSTEMATIC ERROR IN DETAIL WAS DISCUSSED IN TEXT.	30296	1	34				
COMMENT	EXCEPT IODINE, SAMPLES WERE OXIDE OR CARBONATE POWDER.	30296	1	35				
	SAMPLE HOLDERS MADE FROM PRESSED GRAPHITE, WERE IN THE	30296	1	36				
	FORM OF A CIRCULAR POT OF DIAM. 2.5CM, IN WHICH SAMPLES	30296	1	37				
	WERE PRESSED TO FORM TABLETS OF MAX. THICKNESS OF 2 MM.	30296	1	38				
	DATA OBTAINED ARE VERY MUCH LARGER THAN THOSE PREDICTED	30296	1	39				
	BY THE COMPOUND NUCLEUS THEORY.	30296	1	40				
	DATA FOR V-51 FROM PROCEED.OF INT.SVMP.ON RADIATION	30296	1	41				
	PHYSICS,CALCUTTA,30 NOV-4 DEC 1974, OTHERS FROM	30296	1	42				
	INDIAN J.PHYS.44(1970)204.	30296	1	43				
HISTORY	(750628C) KO	30296	1	44				
	(760513U) KO. -COSMETIC CHANGE IN SUBENTRY .004.-	30296	1	45				
	(780224A) OS. SUBENTRY .007 ADDED, SUBENTRY .001	30296	1	46				
	ACCORDINGLY UPDATED, COMPLIER'S NOTE ADDED.	30296	1	47				
ENDBIB	45	30296	1	48				
NOCOMMON	0	30296	1	49				
ENDSUBENT	48	30296	1	199999				
SUBENT	30296006	840517	7	1				
BIB	5			2				
REACTION	(59-PR-141(N,G)59-PR-142-G,,SIG)	30296	6	3				
REFERENCE	(J,IJP,44,204,7003) DETAILED, DATA EXCEPT V-51	30296	6	4				
SAMPLE	SPECURE PR(2)-O(3) BLACK OXIDE POWDER.	30296	6	5				
MONITOR	(13-AL-27(N,A)11-NA-24,,SIG)	30296	6	6				
	= 116 +- 8 MB,	30296	6	7				
	AL IN THE FORM OF SPECURE FOIL, 10 MG/CM2 THICKNESS.	30296	6	8				
	(HL,59-PR-142-G) 19.2 HR.	30296	6	9				
HALF-LIFE	7	30296	6	10				
ENDBIB	0	30296	6	11				
NOCOMMON	0	30296	6	12				
DATA	7	30296	6	13				
EN	1	30296	6	14				
MONIT-ERR	HL	DATA	DATA-ERR	MONIT				
MEV	HR	MB	PER-CENT	MB				
MB								
1.4800E+01	8.0000E-02	1.9200E+01	2.1900E+00	1.4000E+01	1.1600E+02	30296	6	17
8.0000E+00						30296	6	18
ENDDATA	6	0				30296	6	19



ENDSUBENT  
ENDENTRY  
ENDTRANS

18  
2  
2

Ø  
1  
1

30296 699999  
3029699999999  
Z9999999999999

```

+TRANS      0      860613
ENTRY       30224      840510
SUBENT     30224001      840510
BIB         14
TITLE
AUTHOR      NEUTRON CROSS SECTIONS OF PR, YB, LU, ER, HO AND TM.
            (R.L.ZIMMERMAN,L.Q.AMARAL,R.FULFARO,M.C.MATTOS,M.ABREU,30224
            R.STASIULEVICIUS)
INSTITUTE   (3BZLIEA)
REFERENCE   (J,NP/A,95-683,6704) FULL REPORT, CONTAINS ALL RESULTS
            (C,GGPARIS,1,53,6610) SAME AS NP A95 683 (1967)
            (C,G4GENEVA,7,82,6405) SHORT REMARK ONLY
            (C,63S PAULO,2,133,6311) SAME AS IEA-86, DETAILED REPORT 30224
            (C,62MEXICO,1,55,6204) SAME AS IEA-51,
            (R,IEA-86,6311) SAME AS 63S PAULO PAPER, TABLE + GRAPHS 30224
            (R,IEA-75,6411) ENGLISH TRANSLATION OF IEA-51
            (R,IEA-51,6206) PORTUGUESE, TABLES + GRAPHS
            HIGH PURITY POWDER OXIDES
SAMPLE      (SPECC) CRYSTAL SPECTROMETER
FACILITY    (SELVE) MECHANICAL MONOCHROMATOR
INC-SOURCE (REAC) REACTOR
METHOD      TRANSMISSION
PART-DET    (N) NEUTRONS
CORRECTION TO THE CROSS SECTIONS DUE TO THE PRESENCE OF SECOND
ORDER REFLECTION FROM THE MONOCHROMATOR CRYSTAL WAS
MADE EXPERIMENTALLY BY MEASURING THE WELL KNOWN GOLD
CROSS SECTION IN AN APPROPRIATE ENERGY INTERVAL.
ERR-ANALYS NO INFORMATION GIVEN
ANALYSIS    SIG TOT = SIG,SCATT. + SIG ABSORPT. + SIG PARAMAGNETIC
            DIFFERENT ENERGY DEPENDENCE OF PARTIAL CROSS SECTIONS
            USED IN ANALYSIS.
STATUS      THE SCATTERING CROSS SECTION WAS ASSUMED TO BE CONSTANT
HISTORY     IN THE CONSIDERED ENERGY RANGE.
            DATA FROM PRIV COM AMARAL, 1968
            (721214T) CONVERSION OF DASTAR 540-545
ENDBIB      30
NOCOMMON   0
ENDSUBENT  33
SUBENT     30224003      840510
BIB         9
REACTION    (67-HO-165(N,G)167-HO-166,(SIG)
ANALYSIS    THERMAL ABSORPTION CROSS SECTION DERIVED FROM TOTAL
            CROSS SECTION ASSUMING AN ASYMPTOTIC PARAMAGNETIC
            CROSS SECTION OF 68 BARNS
            THE CONTRIBUTION OF POSITIVE RESONANCES HAS BEEN
            CALCULATED AS 23 +- 2 BARNS, WHICH LEAVES 37 +- 2 BARNS
            TO BE ATTRIBUTED TO CONTRIBUTIONS FROM BOUND STATES.
            THEY CAUSE A SMALL DEVIATION FROM 1/V IN THE REGION
            NEAR 1 EV.
COMMENT
ENDBIB      9
NOCOMMON   0
DATA        DATA-ERR
EN          3          1
EV          B          B
            2.5300E-02  6.0000E+01  2.0000E+00
ENDDATA    3
ENDSUBENT  17
SUBENT     30224009      840510
BIB         12
REACTION    (67-HO-165(N,SCT)67-HO-165,(SIG)
ANALYSIS    THE LIMITS OF THE DEVIATION OF THE ABS. CROSS SECTION
            FROM 1/V IN THE REGION NEAR 1 EV AND ITS MOST PROBABLE
            VALUE WERE CALCULATED TO DETERMINE THE VALUE AND
            PROBABLE ERROR OF THE SCATTERING CROSS SECTION.
            THE NUCLEAR SCATTERING CROSS SECTION LISTED HERE IS NOT 30224

```

```

0 0 0
30224 0 0 1
30224 1 1 1
30224 1 2 2
30224 1 3 3
30224 1 4 4
30224 1 5 5
30224 1 6 6
30224 1 7 7
30224 1 8 8
30224 1 9 9
30224 1 10 10
30224 1 11 11
30224 1 12 12
30224 1 13 13
30224 1 14 14
30224 1 15 15
30224 1 16 16
30224 1 17 17
30224 1 18 18
30224 1 19 19
30224 1 20 20
30224 1 21 21
30224 1 22 22
30224 1 23 23
30224 1 24 24
30224 1 25 25
30224 1 26 26
30224 1 27 27
30224 1 28 28
30224 1 29 29
30224 1 30 30
30224 1 31 31
30224 1 32 32
30224 1 33 33
30224 1 34 34
30224 1 199999 199999
30224 8 1 1
30224 8 11 11
30224 8 12 12
30224 8 13 13
30224 8 14 14
30224 8 15 15
30224 8 16 16
30224 8 17 17
30224 8 18 18
30224 8 19 19
30224 9 1 1
30224 9 2 2
30224 9 3 3
30224 9 4 4
30224 9 5 5
30224 9 6 6
30224 9 7 7
30224 9 8 8

```

TO BE INTERPRETED AS THE POTENTIAL SCATTERING.  
INTERFERENCE WITH RESONANCE SCATTERING MAY GIVE  
SCATTERING LARGER OR SMALLER THAN THE POTENTIAL  
SCATTERING BY AN AMOUNT DEPENDENT ON THE PARAMETERS  
OF RESONANCES AND BOUND STATES, WHICH ARE NOW  
INSUFFICIENTLY WELL KNOWN.

ENDBIB 12 0  
NOCOMMON 3 0  
DATA 1 1

EV B DATA-ERR B  
2.5300E-02 1.0000E+01 2.0000E+00

ENDDATA 3 0  
ENDSUBENT 20 0  
ENDENTRY 3 1

ENTRY 31280 851217  
SUBENT 31280001 851217

BIB 5  
(3INDSAH)

INSTITUTE (J,NP,85,227,66)  
REFERENCE (B,SETHI,S,K,MUKHERJEE)

AUTHOR THE DECAY OF HO164.  
TITLE (771115T) CONVERTED FROM EXFOR 70280

HISTORY 5  
ENDBIB 0

NOCOMMON 0  
ENDSUBENT 8 0

SUBENT 31280004 851217

BIB 3  
REACTION (67-HO-165(N,2N)67-HO-164, SIG)

STATUS (SCSRS)  
METHOD (ACTIV)

ENDBIB 0  
NOCOMMON 0  
DATA 3 1

EV B DATA-ERR B  
1.4000E+01 1.0000E+00 1.4000E-01

ENDDATA 3 0  
ENDSUBENT 11 0  
ENDENTRY 2 1

ENTRY 31343 851217  
SUBENT 31343001 851217

BIB 5  
(3BZLUSP)

INSTITUTE (R,IEA-99,65083)  
REFERENCE (M,C,MATTOS)

AUTHOR PARAMAGNETIC STUDIES OF HOLMIUM BY NEUTRON TOTAL CROSS-  
SECTION MEASUREMENTS.  
TITLE (771115T) CONVERTED FROM EXFOR 70343

HISTORY 6  
ENDBIB 0

NOCOMMON 0  
ENDSUBENT 9 0

SUBENT 31343002 851217

BIB 3  
(67-HO-165(N,ABS), SIG)

REACTION (SCSRS)  
STATUS SUBTR. TOTAL MINUS 7B SCATTERING AND 1.3B PARAMAGNETIC  
ANALYSIS SCATTERING.

ENDBIB 4  
NOCOMMON 0

DATA 3 1  
DATA-ERR B

EV B DATA-ERR B  
2.5300E-08 6.1000E+01 3.0000E+00

30224 9 9  
30224 9 10  
30224 9 11  
30224 9 12  
30224 9 13  
30224 9 14  
30224 9 15  
30224 9 16  
30224 9 17  
30224 9 18  
30224 9 19  
30224 9 20  
30224 9 21  
302249999999999

31280 1 1  
31280 1 2  
31280 1 3  
31280 1 4  
31280 1 5  
31280 1 6  
31280 1 7  
31280 1 8  
31280 1 9  
31280 4 1  
31280 4 2  
31280 4 3  
31280 4 4  
31280 4 5  
31280 4 6  
31280 4 7  
31280 4 8  
31280 4 9

31280 4 10  
31280 4 11  
31280 4 12  
31280 4999999  
312809999999999

31343 0 1  
31343 1 1  
31343 1 2  
31343 1 3  
31343 1 4  
31343 1 5  
31343 1 6  
31343 1 7  
31343 1 8  
31343 1 9  
31343 1 10  
31343 1 1099999

31343 2 1  
31343 2 2  
31343 2 3  
31343 2 4  
31343 2 5  
31343 2 6  
31343 2 7  
31343 2 8  
31343 2 9  
31343 2 10  
31343 2 11  
31343 2 12

31343 2 11  
31343 2 12

ENDDATA 3  
 ENDSUBENT 12 0  
 SUBENT 31343003 851217  
 BIB 3 3  
 REACTION (67-HO-165(N,SCT)67-HO-165, SIG)  
 STATUS (SCSRS)  
 ANALYSIS SUBTR. TOTAL - (ELASTIC OR NONELASTIC)  
 ENDBIB 3 0  
 NOCOMMON 0 1  
 DATA 2  
 EN DATA 1  
 EN MEV B  
 2.5399E-08 9.0000E+00  
 ENDDATA 3 0  
 ENDSUBENT 11 0  
 ENDEENTRY 3 1  
 ENDTRANS 3 1

31343 2 13  
 31343 299999 1  
 31343 3 1  
 31343 3 2  
 31343 3 3  
 31343 3 4  
 31343 3 5  
 31343 3 6  
 31343 3 7  
 31343 3 8  
 31343 3 9  
 31343 3 10  
 31343 3 11  
 31343 3 12  
 31343 399999  
 31343999999999  
 Z9999999999999

(copy 5000000)

+TRAMS 0 860618  
ENTRY 30224 840510  
SUBMIT 30224001 840510  
BIB 14  
TITLE 14  
AUTHOR (R.L.ZIMMERMAN,L.Q.AMARAL,R.FULFARO,M.C.MATTOS,M.ABREU,30224  
R.STASIULEVICIUS) 30224

INSTITUTE (BRZLIEA) 30224  
REFERENCE (J,NP/A,95,683,6704) FULL REPORT, CONTAINS ALL RESULTS 30224  
(C,66PARIS,1,53,6610) SAME AS NP A95 683 (1967) 30224  
(C,64GENEVA,7,82,6405) SHORT REMARK ONLY 30224  
(C,63S PAULO,2,133,6311) SAME AS IEA-86, DETAILED REPORT 30224  
(C,62MEXICO,1,55,6224) SAME AS IEA-51, 30224  
(R,IEA-86,6311) SAME AS 63S PAULO PAPER, TABLE + GRAPHS 30224  
(R,IEA-75,6411) ENGLISH TRANSLATION OF IEA-51 30224  
(R,IEA-51,6205) PORTUGUESE, TABLES + GRAPHS 30224  
HIGH PURITY POWDER OXIDES 30224  
FACILITY (SPEC) CRYSTAL SPECTROMETER 30224  
(SELVE) MECHANICAL MONOCHROMATOR 30224

INC-SOURCE (N) NEUTRONS 30224  
METHOD TRANSMISSION 30224  
PART-DET (N) NEUTRONS 30224  
CORRECTION TO THE CROSS SECTIONS DUE TO THE PRESENCE OF SECOND 30224  
ORDER REFLECTION FROM THE MONOCHROMATOR CRYSTAL WAS 30224  
MADE EXPERIMENTALLY BY MEASURING THE WELL KNOWN GOLD 30224  
CROSS SECTION IN AN APPROPRIATE ENERGY INTERVAL. 30224  
NO INFORMATION GIVEN 30224  
ERR-ANALYS SIG TOT = SIG.SCATT. + SIG.ABSORPT. + SIG.PARAMAGNETIC 30224  
ANALYSIS DIFFERENT ENERGY DEPENDENCE OF PARTIAL CROSS SECTIONS 30224  
USED IN ANALYSIS. 30224

STATUS HISTORY IN THE SCATTERING CROSS SECTION WAS ASSUMED TO BE CONSTANT 30224  
HISTORY IN THE CONSIDERED ENERGY RANGE. 30224  
ENDBIB DATA FROM PRIV.COM ANARAL, 1968 30224  
NOCOMMON (72121AT) CONVERSION OF DASTAR 540-545 30224  
ENDSUBMIT 30 30224  
SUBMIT 33 30224  
BIB 30224016 840510 199999  
4 30224  
14 30224

REACTION (69-TM-169(N,SCT)69-TM-169,(SIG) 30224  
ANALYSIS NEAR 1 EV THE TOTAL CROSS SECTION WAS USED TO DETERMINE 30224  
THE NUCLEAR SCATTERING CROSS SECTION 30224  
THE ERROR QUOTED INCLUDES A CONTRIBUTION FROM THE 30224  
UNCERTAINTIES IN THE PUBLISHED RESONANCE PARAMETERS, ASSUMED 30224  
WELL AS THE UNCERTAINTY IN THE BOUND STATE PARAMETERS 30224  
WHICH ARE, OF COURSE, NOT COMPLETELY DETERMINED. 30224  
THE NUCLEAR SCATTERING CROSS SECTION LISTED HERE IS NOT 30224  
TO BE INTERPRETED AS THE POTENTIAL SCATTERING. 30224  
INTERFERENCE WITH RESONANCE SCATTERING MAY GIVE 30224  
SCATTERING LARGER OR SMALLER THAN THE POTENTIAL 30224  
SCATTERING BY AN AMOUNT DEPENDENT ON THE PARAMETERS 30224  
OF RESONANCES AND BOUND STATES, WHICH ARE NOW 30224  
INSUFFICIENTLY WELL KNOWN. 30224

COMMENT 30224 16 10  
30224 16 11  
30224 16 12  
30224 16 13  
30224 16 14  
30224 16 15  
30224 16 16  
30224 16 17  
30224 16 18  
30224 16 19  
30224 16 20  
30224 16 21  
30224 16 22  
30224 16 23  
30224 1699999  
Z999999999999

ENDBIB 30224  
NOCOMMON 30224  
DATA 1  
EN 3 DATA-ERR 1  
EV B DATA-ERR 1  
2.5300E-02 1.2000E+01 2.0000E+00  
ENDDATA 3  
ENDSUBMIT 22  
ENDENTRY 2  
ENDTRANS 1

```

DECAY-DATA (69-TM-168,93.1D,DG,448.,0.27)
ENDBIB 3 0 0
NOCOMMON 0 0
DATA 5 1
EN MB DATA-ERR MONIT MONIT-ERR
MEV 1.4800E+01 1.4430E+03 1.2900E+02 1.1400E+02 6.0000E+00
ENDDATA 3 0 0
ENDSUBENT 11 0 0
SUBENT 10431060 830607
BIB 3
REACTION (70-YB-163(N,2N)70-YB-167,;SIG)
MONITOR (13-AL-27(N,A)11-NA-24,;SIG)
DECAY-DATA (70-YB-167,17.5MIN,DG,175.,0.15)
ENDBIB 3 0 0
NOCOMMON 0 0
DATA 5 1
EN MB DATA-ERR MONIT MONIT-ERR
MEV 1.4800E+01 1.8730E+03 2.0100E+02 1.1400E+02 6.0000E+00
ENDDATA 3 0 0
ENDSUBENT 11 0 0
SUBENT 10431061 830607
BIB 3
REACTION (70-YB-170(N,2N)70-YB-169,;SIG)
MONITOR (70-YB-169-G,32.D,DG,198.,0.35)
ENDBIB 3 0 0
NOCOMMON 0 0
DATA 5 1
EN MB DATA-ERR MONIT MONIT-ERR
MEV 1.4800E+01 2.0150E+03 1.5000E+02 1.1400E+02 6.0000E+00
ENDDATA 3 0 0
ENDSUBENT 11 0 0
SUBENT 10431062 830607
BIB 2
REACTION (13-AL-27(N,P)12-MG-27,;SIG)
HISTORY (770204A) DATA REMOVED, SAME AS 1008872.
ENDBIB 2 0 0
NOCOMMON 0 0
NODATA 0 0 0
ENDSUBENT 53 0 0
ENTRY 30652 840912
SUBENT 30662001 840912
BIB 15
TITLE 14.8 MEV NEUTRON ACTIVATION CROSS-SECTIONS FOR (N,P)
AND (N,A) REACTIONS OF SOME RARE EARTH NUCLIDES
AUTHOR (A.BARI)
INSTITUTE (3SARDHA)
REFERENCE (J,JRC,75,(1+2),189,82)
FACILITY (CGW) 400 KEV COCKROFT-WALTON POSITIVE ION ACCELERATOR
OF THE UNIVERSITY OF ARKANSAS
INC-SOURCE (D-T)
METHOD (ACTIV,MOMIX)
MONITOR 1(13-AL-27(N,P)12-MG-27,;SIG)
2(13-AL-27(N,A)11-NA-24,;SIG)
3(26-FE-56(N,P)25-MN-56,;SIG)
-COMPILER NOTE THE C.S. VALUES USED AS STANDARD ARE
IN GOOD AGREEMENT WITH LAST MEASUREMENTS AND EVALUATION
830921. VP.
DECAY-MON 1(12-MG-27,9.5MIN,DG)
2(11-NA-24-G,15.HR,DG)

```

```

10431 59 5
10431 59 6
10431 59 7
10431 59 8
10431 59 9
10431 59 10
10431 59 11
10431 59 12
10431 5999999 12
10431 60 1
10431 60 2
10431 60 3
10431 60 4
10431 60 5
10431 60 6
10431 60 7
10431 60 8
10431 60 9
10431 60 10
10431 61 11
10431 61 12
10431 61 1
10431 61 2
10431 61 3
10431 61 4
10431 61 5
10431 61 6
10431 61 7
10431 61 8
10431 61 9
10431 61 10
10431 61 11
10431 61 12
10431 6199999 12
10431 62 1
10431 62 2
10431 62 3
10431 62 4
10431 62 5
10431 62 6
10431 62 7
10431 6299999 7
10431 6299999 9
104319999999 9
30662 0 1
30662 1 1
30662 1 2
30662 1 3
30662 1 4
30662 1 5
30662 1 6
30662 1 7
30662 1 8
30662 1 9
30662 1 10
30662 1 11
30662 1 12
30662 1 13
30662 1 14
30662 1 15
30662 1 16
30662 1 17
30662 1 18
30662 1 19

```

```

3(25-MN-56,2.56HR,DG)
MONIT-REF 1(110088002,L,HUSSAIN+,J,PR/C,1,1233,7004)
2(11484002,A,POLARIKAS+,J,PR,115,989,5908)
3(L,HUSSAIN+,J,PR/C,1,1233,7004)
DETECTOR (GELI) 8.CM**3 IN VOLUME.THE EFFICIENCY OF THE DETECTOR30662
WAS CALIBRATED WITH STANDARD GAMMA-RAY SOURCES OF 30662
AM-241,CO-57,BA-133,NA-24,CS-137,MN-54,ZN-65 AND CO-60. 30662
THE CALIBRATION ACCURACY LIES WITHIN 1 TO 3 PER-CENT 30662
PART-DET (G)
ERR-ANALYS (DATA-ERR) TOTAL ERROR OF EXPERIMENT 30662
STATUS NUMERICAL DATA WERE TAKEN FROM 30662
J,RADIOANAL,CHEM,75,P,192, TABLE2 30662
HISTORY (830912C) COMPILED BY VP. 30662
ENDBIB 30
COMMON 0
EN MONIT1 MONIT1-ERR MONIT2 MONIT2-ERR MONIT3
MONIT3-ERR MB MB MB MB
MEV 7 6
MB MB MB MB
1.4800E+01 7.3000E+01 5.0000E+00 1.1400E+02 6.0000E+00 1.0500E+02
2.0000E+00 6 0 0 0 0 0
ENDCOMMON 40 0 0 0 0 0
ENDSUBENT 30662002 840912 30662 199999
SUBENT 3 840912 4
BIB 3
REACTION (57-LA-139(N,P)57-BA-139,;SIG)
SAMPLE SPECTROSCOPICALLY PURE OXIDE OF NATURAL MIXTURE OF
ISOTOPES
DECAY-DATA (56-BA-139,83.2MIN,DG,166.,0.23)
ENDBIB 4 0 0 0 0 0
NOCOMMON 0 0 0 0 0 0
DATA DATA-ERR 2 1 1
MB
6.0000E+00 6.0000E-01
ENDDATA 3 0 0 0 0 0
ENDSUBENT 12 0 0 0 0 0
SUBENT 30662003 840912 4
BIB 3
REACTION (58-CE-140(N,P)57-LA-140,;SIG)
SAMPLE SPECTROSCOPICALLY PURE OXIDE OF NATURAL MIXTURE OF
ISOTOPES
DECAY-DATA (57-LA-140,40.23HR,DG,487.,0.40)
ENDBIB 4 0 0 0 0 0
NOCOMMON 0 0 0 0 0 0
DATA DATA-ERR 2 1
MB
8.1000E+00 8.0000E-01
ENDDATA 3 0 0 0 0 0
ENDSUBENT 12 0 0 0 0 0
SUBENT 30662004 840912 4
BIB 3
REACTION (59-PR-141(N,P)58-CE-141,;SIG)
SAMPLE SPECTROSCOPICALLY PURE OXIDE OF NATURAL MIXTURE OF
ISOTOPES
DECAY-DATA (58-CE-141,32.53D,DG,145.,0.48)
ENDBIB 4 0 0 0 0 0
NOCOMMON 0 0 0 0 0 0
DATA DATA-ERR 2 1
MB
1.1400E+01 1.1000E+00
ENDDATA 3 0 0 0 0 0
30662 1 20
30662 1 21
30662 1 22
30662 1 23
30662 1 24
30662 1 25
30662 1 26
30662 1 27
30662 1 28
30662 1 29
30662 1 30
30662 1 31
30662 1 32
30662 1 33
30662 1 34
30662 1 35
30662 1 36
30662 1 37
30662 1 38
30662 1 39
30662 1 40
30662 1 41
30662 199999 1
30662 2 2
30662 2 3
30662 2 4
30662 2 5
30662 2 6
30662 2 7
30662 2 8
30662 2 9
30662 2 10
30662 2 11
30662 2 12
30662 2 13
30662 299999 1
30662 3 1
30662 3 2
30662 3 3
30662 3 4
30662 3 5
30662 3 6
30662 3 7
30662 3 8
30662 3 9
30662 3 10
30662 3 11
30662 3 12
30662 399999 1
30662 4 1
30662 4 2
30662 4 3
30662 4 4
30662 4 5
30662 4 6
30662 4 7
30662 4 8
30662 4 9
30662 4 10
30662 4 11
30662 4 12
30662 4 13

```

ENDSUBENT	12	0	30662	499999	9
SUBENT	30662005	840912	30662	5	1
BIB	3	4	30662	5	2
REACTION	(60-ND-146(N,P)59-PR-146,;SIG)		30662	5	3
SAMPLE	SPECTROSCOPICALLY PURE OXIDE OF NATURAL MIXTURE OF ISOTOPES		30662	5	4
DECAY-DATA	(59-PR-146, 24.2MIN, DG, 455., 0.77)		30662	5	5
ENDBIB	4	0	30662	5	6
NOCOMMON	0	0	30662	5	7
DATA	0	0	30662	5	8
DATA	2	1	30662	5	9
DATA	DATA-ERR		30662	5	10
MB	MB		30662	5	11
ENDDDATA	2.9000E+00	3.0000E-01	30662	5	11
ENDSUBENT	3	0	30662	5	12
SUBENT	12	0	30662	5	13
BIB	30662006	840912	30662	599999	1
REACTION	(62-SM-150(N,P)61-PM-150,;SIG)		30662	6	2
SAMPLE	SPECTROSCOPICALLY PURE OXIDE OF NATURAL MIXTURE OF ISOTOPES		30662	6	3
DECAY-DATA	(61-PM-150, 2.68HR, DG, 334., 0.71)		30662	6	4
ENDBIB	4	0	30662	6	5
NOCOMMON	0	0	30662	6	6
DATA	0	0	30662	6	7
DATA	2	1	30662	6	8
DATA	DATA-ERR		30662	6	9
MB	MB		30662	6	10
ENDDDATA	7.0000E+00	6.0000E-01	30662	6	11
ENDSUBENT	3	0	30662	6	12
SUBENT	12	0	30662	6	13
BIB	30662007	840912	30662	699999	1
REACTION	(63-EU-153(N,P)62-SM-153,;SIG)		30662	7	2
SAMPLE	SPECTROSCOPICALLY PURE OXIDE OF NATURAL MIXTURE OF ISOTOPES		30662	7	3
DECAY-DATA	(62-SM-153, 46.8HR, DG, 103., 0.28)		30662	7	4
ENDBIB	4	0	30662	7	5
NOCOMMON	0	0	30662	7	6
DATA	0	0	30662	7	7
DATA	2	1	30662	7	8
DATA	DATA-ERR		30662	7	9
MB	MB		30662	7	10
ENDDDATA	4.4000E+00	5.0000E-01	30662	7	11
ENDSUBENT	3	0	30662	7	12
SUBENT	12	0	30662	7	13
BIB	30662008	840912	30662	799999	1
REACTION	(65-TB-159(N,P)64-GD-159,;SIG)		30662	8	2
SAMPLE	SPECTROSCOPICALLY PURE OXIDE OF NATURAL MIXTURE OF ISOTOPES		30662	8	3
DECAY-DATA	(64-GD-159, 18.0HR, DG, 363., 0.09)		30662	8	4
ENDBIB	4	0	30662	8	5
NOCOMMON	0	0	30662	8	6
DATA	0	0	30662	8	7
DATA	2	1	30662	8	8
DATA	DATA-ERR		30662	8	9
MB	MB		30662	8	10
ENDDDATA	6.6000E+00	7.0000E-01	30662	8	11
ENDSUBENT	3	0	30662	8	12
SUBENT	12	0	30662	8	13
BIB	30662009	840912	30662	899999	1
REACTION	(68-ER-163(N,P)67-HO-166-G,;SIG)		30662	9	2
SAMPLE	SPECTROSCOPICALLY PURE OXIDE OF NATURAL MIXTURE OF ISOTOPES		30662	9	3
DECAY-DATA	(67-HO-166-G, 25.8HR, DG, 81., 0.054)		30662	9	4
ENDBIB	4	0	30662	9	5
ENDSUBENT	3	0	30662	9	6



NOCOMMON 0 0 1  
 DATA 2 1  
 DATA-ERR 2  
 MB  
 2.3000E+00 2.0000E-01  
 ENDDATA 3  
 ENDSUBENT 12 0  
 SUBENT 30662010 840912  
 BIB 3 4  
 REACTION (70-YB-174(N,P)69-TM-174,SIG)  
 SAMPLE SPECTROSCOPICALLY PURE OXIDE OF NATURAL MIXTURE OF ISOTOPES  
 DECAY-DATA (69-TM-174,5.5MIN,DG,273.,0.85)  
 ENDBIB 4 0  
 NOCOMMON 0 0  
 DATA 0 1  
 DATA-ERR 2  
 MB  
 3.9000E+00 4.0000E-01  
 ENDDATA 3 0  
 ENDSUBENT 12 0  
 SUBENT 30662011 840912  
 BIB 3 4  
 REACTION (57-LA-139(N,A)55-CS-136,SIG)  
 SAMPLE SPECTROSCOPICALLY PURE OXIDE OF NATURAL MIXTURE OF ISOTOPES  
 DECAY-DATA (55-CS-136-G,13.D,DG,340.,0.53)  
 ENDBIB 4 0  
 NOCOMMON 0 0  
 DATA 0 1  
 DATA-ERR 2  
 MB  
 2.5000E+00 3.0000E-01  
 ENDDATA 3 0  
 ENDSUBENT 12 0  
 SUBENT 30662012 840912  
 BIB 4 6  
 REACTION (58-CE-142(N,A)56-BA-139,SIG)  
 SAMPLE SPECTROSCOPICALLY PURE OXIDE OF NATURAL MIXTURE OF ISOTOPES  
 COMMENT (56-BA-139,83.2MIN,DG,165.,0.23)  
 REACTION WAS STUDIED USING RADIOCHEMICAL SEPARATION AFTER THE IRRADIATION  
 ENDBIB 5 0  
 NOCOMMON 0 0  
 DATA 0 1  
 DATA-ERR 2  
 MB  
 6.5000E+00 8.0000E-01  
 ENDDATA 3 0  
 ENDSUBENT 14 0  
 SUBENT 30662013 840912  
 BIB 3 3  
 REACTION (60-ND-142(N,A)58-CE-139,SIG)  
 SAMPLE ENRICHED ISOTOPE SAMPLE  
 DECAY-DATA (58-CE-139-G,137.5D,DG,165.,0.80)  
 ENDBIB 3 0  
 NOCOMMON 0 0  
 DATA 0 1  
 DATA-ERR 2  
 MB  
 7.1000E+00 8.0000E-01  
 ENDDATA 3 0  
 ENDSUBENT 11 0

30662 9 8  
 30662 9 9  
 30662 9 10  
 30662 9 11  
 30662 9 12  
 30662 9 13  
 30662 999999  
 30662 10 1  
 30662 10 2  
 30662 10 3  
 30662 10 4  
 30662 10 5  
 30662 10 6  
 30662 10 7  
 30662 10 8  
 30662 10 9  
 30662 10 10  
 30662 10 11  
 30662 10 12  
 30662 10 13  
 30662 10999999  
 30662 11 1  
 30662 11 2  
 30662 11 3  
 30662 11 4  
 30662 11 5  
 30662 11 6  
 30662 11 7  
 30662 11 8  
 30662 11 9  
 30662 11 10  
 30662 11 11  
 30662 11 12  
 30662 11 13  
 30662 11999999  
 30662 12 1  
 30662 12 2  
 30662 12 3  
 30662 12 4  
 30662 12 5  
 30662 12 6  
 30662 12 7  
 30662 12 8  
 30662 12 9  
 30662 12 10  
 30662 12 11  
 30662 12 12  
 30662 12 13  
 30662 12 14  
 30662 12 15  
 30662 12999999  
 30662 13 1  
 30662 13 2  
 30662 13 3  
 30662 13 4  
 30662 13 5  
 30662 13 6  
 30662 13 7  
 30662 13 8  
 30662 13 9  
 30662 13 10  
 30662 13 11  
 30662 13 12  
 30662 13999999

SUBENT 30662014 840912  
 BIB 4  
 REACTION (62-SM-150(N,A)60-ND-147,,SIG)  
 SAMPLE ENRICHED ISOTOPE SAMPLE  
 DECAY-DATA (60-ND-147,,11.06D,DG,91.,0.28)  
 CORRECTION SM-153 (WITH GAMMA-LINE 89.47 KEV) PRODUCED BY (N,2N)  
 REACTION AT THE SM-154 CONTAINING AT THE ENRICHED  
 SM-150 SAMPLE  
 ENDBIB 7  
 NOCOMMON 0  
 DATA 0  
 DATA-ERR 1  
 MB 2  
 3.5000E+00 5.0000E-01  
 ENDDATA 3  
 ENDSUBENT 15  
 SUBENT 30662015 840912  
 BIB 3  
 REACTION (62-SM-152(N,A)60-ND-149,,SIG)  
 SAMPLE ENRICHED ISOTOPE SAMPLE  
 DECAY-DATA (60-ND-149,,1.73HR,DG,114.,0.18)  
 ENDBIB 3  
 NOCOMMON 0  
 DATA 0  
 DATA-ERR 1  
 MB 2  
 1.7000E+00 2.0000E-01  
 ENDDATA 3  
 ENDSUBENT 11  
 SUBENT 30662016 840912  
 BIB 3  
 REACTION (62-SM-154(N,A)60-ND-151,,SIG)  
 SAMPLE ENRICHED ISOTOPE SAMPLE  
 DECAY-DATA (60-ND-151,,12.4MIN,DG,118.,0.40)  
 ENDBIB 3  
 NOCOMMON 0  
 DATA 0  
 DATA-ERR 1  
 MB 2  
 9.0000E-01 1.0000E-01  
 ENDDATA 3  
 ENDSUBENT 11  
 SUBENT 30662017 840912  
 BIB 3  
 REACTION (66-DY-162(N,A)64-GD-159,,SIG)  
 SAMPLE ENRICHED ISOTOPE SAMPLE  
 DECAY-DATA (64-GD-159,,18.0HR,DG,363.,0.09)  
 ENDBIB 3  
 NOCOMMON 0  
 DATA 0  
 DATA-ERR 1  
 MB 2  
 2.1000E+00 2.0000E-01  
 ENDDATA 3  
 ENDSUBENT 11  
 ENENTRY 18  
 ENDTRANS 2

30662 14 1  
 30662 14 2  
 30662 14 3  
 30662 14 4  
 30662 14 5  
 30662 14 6  
 30662 14 7  
 30662 14 8  
 30662 14 9  
 30662 14 10  
 30662 14 11  
 30662 14 12  
 30662 14 13  
 30662 14 14  
 30662 14 15  
 30662 14 16  
 30662 1499999 1  
 30662 15 2  
 30662 15 3  
 30662 15 4  
 30662 15 5  
 30662 15 6  
 30662 15 7  
 30662 15 8  
 30662 15 9  
 30662 15 10  
 30662 15 11  
 30662 15 12  
 30662 1599999 1  
 30662 16 2  
 30662 16 3  
 30662 16 4  
 30662 16 5  
 30662 16 6  
 30662 16 7  
 30662 16 8  
 30662 16 9  
 30662 16 10  
 30662 16 11  
 30662 16 12  
 30662 1699999 1  
 30662 17 2  
 30662 17 3  
 30662 17 4  
 30662 17 5  
 30662 17 6  
 30662 17 7  
 30662 17 8  
 30662 17 9  
 30662 17 10  
 30662 17 11  
 30662 17 12  
 30662 1799999 1  
 30662 1799999 2  
 Z99999999999999

10/20/00

10/20/00

10/20/00

+TRANS 0 860613  
 ENTRY 30051 850219  
 SUBENT 30051001 850219  
 BIB 16  
 TITLE 16  
 CROSS SECTIONS FOR (N,2N), (N,A) AND (N,P) REACTIONS IN RARE EARTH ISOTOPES AT 14.2 MEV  
 (P. RAMA PRASAD, J. RAMA RAO, E. KONDAIAH)

AUTHOR (P. RAMA PRASAD, J. RAMA RAO, E. KONDAIAH)  
 INSTITUTE (3INDAUW)  
 REFERENCE (J. NP/A, 125, 57, 6902) ACTIVATION, CFD OTHERS, TABLE  
 (C, 60BOMBAY, 2, 128, 68) SAME VALUES AS NP/A 125, 57, 69  
 (C, 67KANPUR, 355, 6702) PRELIM RESULTS, CFD OTHERS, TABLE  
 (P, BARC-401, 300, 69) PROGRESS REPORT, NUMERICAL VALUES  
 OXIDE- NATURAL SAMPLES IN OXIDE FORM, WITH CHEMICAL  
 PURITY GREATER THAN 99.9 PERCENT, ENCAPSULATED IN POLY-  
 ETHYLENE CYLINDERS 0.5 CM IN DIAMETER AND 2-3CM HEIGHT  
 (13-AL-27(N,A)) 11-NA-24, (SIG)  
 (13-AL-27(N,A)) 11-NA-24, (SIG)  
 TAKEN FROM GARDNER ET AL (NP, 49 60 1964).

MONITOR (CCV) COCKROFT-WALTON ACCELERATOR  
 FACILITY (D-1) H3(D,N) HE4 REACTION, THICK TARGET,  
 INC-SOURCE (ACTIVE) ACTIVATION. HALF-LIFE AND CHARACTERISTIC NEUTRON FLUX OF THE ORDER OF  $10^{19}$  N/SO-CM/SEC  
 METHOD GAMMA-RAY SPECTRUM WERE BOTH STUDIED. FROM GAMMA-RAY SPECTRUM, A PROMINENT PHOTOPEAK, CHARACTERISTIC OF THE PRODUCT NUCLEUS WAS SELECTED FOR ANALYSIS.

DETECTOR SAMPLES PUT IN A PLANE PERPENDICULAR TO DEUTERON BEAM. (NAICR) IRRADIATED SAMPLES WERE MEASURED WITH A WELL TYPE NA(11L) DETECTOR 6.5 CM X 6.5 CM IN SIZE. WELL DIMENSIONS 0.8 CM IN DIAMETER AND 3.2 CM DEEP (HORBU) HORNYAK BUTTON DETECTOR EMBEDDED IN PARAFFIN USED TO MONITORING NEUTRON FLUX.  
 DECAY GAMMAS (DG)

PART-DET DATA CORRECTED FOR SOURCE ABSORPTION AND CASCAIDING CORRECTION EFFECTS AS SUGGESTED BY TIVARI ET AL (NIM 42 118 1966) ERRORS ASSOCIATED WITH MEASURED CROSS SECTIONS ARE THE R.M.S. ERROR CORRESPONDING TO THE VARIOUS TERMS IN THE EXPRESSION USED TO DEDUCE PHOTOPEAK AREA. UNCERTAINTIES IN PHOTOPEAK EFFICIENCIES ESTIMATED TO BE BETWEEN 5 AND 30% IN PC ACCORDING WITH GAMMA-RAY ENERGY. MAXIMUM STATISTICAL ERROR IN PHOTOPEAK AREAS LESS THAN 4 PC. ERROR IN MONITOR CROSS SECTION IS ABOUT 5 PC. ERRORS IN INTERNAL CONVERSION COEFFICIENTS, HALF-LIVES AND ABSOLUTE INTENSITIES OF GAMMA RAYS CHOSEN NOT INCLUDED. ERRORS IN REMAINING QUANTITIES ARE LESS THAN 1 PC EACH.  
 TOTAL AND PHOTOPEAK EFFICIENCIES FOR GAMMA RAYS FOR THE WELL-TYPE CRYSTAL WERE TAKEN FROM TIVARI ET AL (NIM 42, 118, 1966)  
 PREVIOUS EXPERIMENTAL VALUES QUOTED IN THE LITERATURE ARE ALSO GIVEN.

COMMENT DATA TAKEN FROM NP/A 125 57 1969, TABLE 1.  
 (681125R) DATA FROM E. KONDAIAH, PRIVATE COMMUNICATION  
 (690211C) DATA COMPILED INTO DASTAR  
 ENDBIB 4  
 COMMON EN-RSL MONIT MB MONIT-ERR  
 EN 3  
 MEV 1.4200E+01 2.0000E-01 1.1500E+02 5.0000E+00  
 ENDCOMMON 54  
 ENDSUBENT 3  
 SUBENT 30051003 340503  
 BIB 3  
 REACTION (63-EU-153(N,2N)63-EU-152-M, (SIG)  
 SECOND METASTABLE STATE  
 ENERGY OF THE GAMMA-RAY DETECTED = 0.09 MEV  
 COMMENT (701210T) TRANSFORMED FROM DASTAR-00752

0 0 0  
 1 1 1  
 2 2 2  
 3 3 3  
 4 4 4  
 5 5 5  
 6 6 6  
 7 7 7  
 8 8 8  
 9 9 9  
 10 10 10  
 11 11 11  
 12 12 12  
 13 13 13  
 14 14 14  
 15 15 15  
 16 16 16  
 17 17 17  
 18 18 18  
 19 19 19  
 20 20 20  
 21 21 21  
 22 22 22  
 23 23 23  
 24 24 24  
 25 25 25  
 26 26 26  
 27 27 27  
 28 28 28  
 29 29 29  
 30 30 30  
 31 31 31  
 32 32 32  
 33 33 33  
 34 34 34  
 35 35 35  
 36 36 36  
 37 37 37  
 38 38 38  
 39 39 39  
 40 40 40  
 41 41 41  
 42 42 42  
 43 43 43  
 44 44 44  
 45 45 45  
 46 46 46  
 47 47 47  
 48 48 48  
 49 49 49  
 50 50 50  
 51 51 51  
 52 52 52  
 53 53 53  
 54 54 54  
 55 55 55  
 199999  
 1  
 2  
 3  
 4  
 5  
 6



ENDSUBENT	39	0		30234	199999
SUBENT	30234020	840510		30234	20
BIB	2	2		30234	20
REACTION	(63-EU-151(N,G)63-EU-152-M1.,SIG)			30234	20
HALF-LIFE	(HL1,63-EU-152-M1) FOR THE HIGH SPIN ISOMERIC STATE 8-			30234	20
ENDBIB	2	0		30234	20
COMMON	1	3		30234	20
HL1				30234	20
MIN				30234	20
9.6000E+01				30234	20
ENDCOMMON	3	0		30234	20
DATA		1		30234	20
DATA				30234	20
DATA-ERR				30234	20
MB	MB			30234	20
6.0000E+01	8.0000E+00	0		30234	20
ENDDATA	3	0		30234	20
ENDSUBENT	14	0		30234	20
SUBENT	30234021	840510		30234	20
BIB	2	2		30234	21
REACTION	(63-EU-151(N,G)63-EU-152-M2.,SIG)			30234	21
HALF-LIFE	(HL1,63-EU-152-M2) FOR THE LOW SPIN ISOMERIC STATE 0-			30234	21
ENDBIB	2	0		30234	21
COMMON	1	3		30234	21
HL1				30234	21
HR				30234	21
9.3000E+00				30234	21
ENDCOMMON	3	0		30234	21
DATA		1		30234	21
DATA				30234	21
DATA-ERR				30234	21
MB	MB			30234	21
3.2000E+03	5.0000E+02	0		30234	21
ENDDATA	3	0		30234	21
ENDSUBENT	14	0		30234	21
ENDENTRY	3	1		30234	21
ENTRY	31247	851217		30234	21
SUBENT	31247001	851217		30234	21
BIB	6	6		30234	21
INSTITUTE	(3INDMUA)			30234	21
REFERENCE	(J,NP,28,560,61)			30234	21
AUTHOR	(C.S.KHURANA,H.S.HANS)			30234	21
TITLE	CROSS SECTIONS FOR (N,2N) REACTIONS AT 14.8 MEV.			30234	21
MONITOR	(26-FE-56(N,P)25-MN-56.,SIG)			30234	21
HISTORY	(771115T) CONVERTED FROM EXFOR 70247			30234	21
ENDBIB	6	0		30234	21
COMMON	1	3		30234	21
MONIT				30234	21
MB				30234	21
1.2000E+02				30234	21
ENDCOMMON	3	0		30234	21
ENDSUBENT	13	0		30234	21
SUBENT	31247016	851217		30234	21
BIB	3	3		30234	21
REACTION	(63-EU-151(N,2N)63-EU-150.,SIG)			30234	21
STATUS	(SCSRS)			30234	21
METHOD	(ACTIV)			30234	21
ENDBIB	3	0		30234	21
NOCOMMON	4	0		30234	21
DATA		1		30234	21
EN	EN-RSL	DATA	DATA-ERR	30234	21
MEV	MEV	B	PER-CENT	30234	21
1.4000E+01	5.0000E-01	6.4000E-01	1.0000E+01	30234	21
ENDDATA	3	0		30234	21
ENDSUBENT	11	0		30234	21
SUBENT	31247017	851217		30234	21

30234 199999  
 30234 20 1  
 30234 20 2  
 30234 20 3  
 30234 20 4  
 30234 20 5  
 30234 20 6  
 30234 20 7  
 30234 20 8  
 30234 20 9  
 30234 20 10  
 30234 20 11  
 30234 20 12  
 30234 20 13  
 30234 20 14  
 30234 20 15  
 30234 20999999  
 30234 21 1  
 30234 21 2  
 30234 21 3  
 30234 21 4  
 30234 21 5  
 30234 21 6  
 30234 21 7  
 30234 21 8  
 30234 21 9  
 30234 21 10  
 30234 21 11  
 30234 21 12  
 30234 21 13  
 30234 21 14  
 30234 21 15  
 30234 21999999  
 30234 99999999 1  
 31247 1 1  
 31247 1 2  
 31247 1 3  
 31247 1 4  
 31247 1 5  
 31247 1 6  
 31247 1 7  
 31247 1 8  
 31247 1 9  
 31247 1 10  
 31247 1 11  
 31247 1 12  
 31247 1 13  
 31247 1 14  
 31247 1 15  
 31247 16 1  
 31247 16 2  
 31247 16 3  
 31247 16 4  
 31247 16 5  
 31247 16 6  
 31247 16 7  
 31247 16 8  
 31247 16 9  
 31247 16 10  
 31247 16 11  
 31247 16 12  
 31247 16 13  
 31247 16 14  
 31247 16 15  
 31247 16 16  
 31247 16 17

BIB		3	3
REACTION	(G3-EU-153(N,2N)G3-EU-152-M, SIG)		
STATUS	(SCSRS)		
METHOD	(ACTIV)	ACTIVATION	
ENDBIB		3	0
COMMON		1	3
HL			
HR	9.3022E+00		
ENDCOMMON		3	0
DATA		4	1
EN	EN-RSL	DATA	DATA-ERR
MEV	MEV	B	PER-CENT
1.4802E+01	5.0000E-01	1.5400E-01	1.5000E+01
ENDDATA		3	0
ENDSUBENT		15	0
ENDENTRY		3	1
ENDTRANS		3	1

31247 17	2
31247 17	3
31247 17	4
31247 17	5
31247 17	6
31247 17	7
31247 17	8
31247 17	9
31247 17	10
31247 17	11
31247 17	12
31247 17	13
31247 17	14
31247 17	15
31247 17	16
31247 17999999	
31247999999999	
Z99999999999999	

IN PA. OF...



1.8171E+01 2.1900E-02 5.3300E+00 3.4900E-01  
1.8553E+01 2.0000E-02 4.8400E+00 4.5000E-01  
1.8670E+01 1.9000E-02 5.1800E+00 4.5000E-01  
1.8822E+01 1.9000E-02 5.0600E+00 4.1000E-01  
ENDDATA  
ENDSUBENT 14 0  
ENDENTRY 22 0  
ENDTRAMS 3 3 0 1

31086 2 19  
31086 2 20  
31086 2 21  
31086 2 22  
31086 2 23  
31086 299999  
310869999999  
Z999999999999



```

+TRANS      0      860625
ENTRY      30016      840503
SUBENT     30016001      840503
BIB        12      18
TITLE
AUTHOR      (M.HUSSAIN, R.CHAUDHURI, M.ENAYETULLAH, E.ISLAM)
INSTITUTE   (3BANRAM)
REFERENCE   (J,JNE,23,113,5903) TABLE AND GRAPH OF 16-19 MEV DATA
16-19 MEV NEUTRONS
(M.HUSSAIN, R.CHAUDHURI, M.ENAYETULLAH, E.ISLAM)
SAMPLE
MONITOR
FACILITY
METHOD
PART-DET
DETECTOR
CORRECTION
ERR-ANALYS
ENDBIB
NOCOMMON
ENDSUBENT
SUBENT     30016002      840503
BIB        4      7
REACTION   (64-GD-0(N,TOT),.SIG)
INC-SOURCE (D-T) DEUTERIUM-TRITIUM.
COMMENT     A LEAST SQUARES ANALYSIS OF THE EXPERIMENTAL DATA GIVES
(680303R) DATA RECEIVED IN LETTER FROM M.HUSSAIN.
HISTORY     (700305C) IDENTICAL DATA COMPILED FROM ONE 23,113, 1.
TABLE 1.
ENDBIB
NOCOMMON
DATA
EN        4      12
MEV
EN-RSL    B      DATA      DATA-ERR
MEV
1.6495E+01  2.8300E-02  4.9700E+00  2.2000E-01
1.6793E+01  2.7000E-02  4.9700E+00  2.6900E-01
1.6931E+01  2.6000E-02  5.1200E+00  2.8000E-01
1.7119E+01  2.6000E-02  4.4200E+00  2.9000E-01
1.7401E+01  2.4000E-02  5.0200E+00  3.4000E-01
1.7734E+01  2.4000E-02  5.3000E+00  3.1000E-01
1.7850E+01  2.2000E-02  4.9700E+00  3.2000E-01
1.7907E+01  2.2000E-02  4.5000E+00  3.4000E-01
1.8171E+01  2.1000E-02  5.3300E+00  3.4000E-01
1.8550E+01  2.0000E-02  4.3400E+00  4.5000E-01
1.8670E+01  1.9000E-02  5.1800E+00  4.6000E-01
1.8822E+01  1.9000E-02  5.0600E+00  4.1000E-01
ENDDATA
ENDDATA
ENDSUBENT
ENTRY      30058
SUBENT     30058001      840503
BIB        12      15
TITLE
AUTHOR      (E.ISLAM, M.HUSSAIN, M.FAROOQUE, M.ENAYETULLAH)
INSTITUTE   (3BANDAC)
REFERENCE   (W,HUSSAIN,770528) FROM M.HUSSAIN, HIGH ENERGY PART.
(J,NP/A,209,189,7307) TOTAL SIG FOR 1 TO 2 MEV.
ABSOLUTE, TRANSMISSION.
(VDG,3BANDAC)

```

```

0      0      0
30016 0 0 1
30016 1 1 1
30016 1 1 2
30016 1 1 3
30016 1 1 4
30016 1 1 5
30016 1 1 6
30016 1 1 7
30016 1 1 8
30016 1 1 9
30016 1 1 10
30016 1 1 11
30016 1 1 12
30016 1 1 13
30016 1 1 14
30016 1 1 15
30016 1 1 16
30016 1 1 17
30016 1 1 18
30016 1 1 19
30016 1 1 20
30016 1 1 21
30016 1 1 22
30016 199999 1
30016 2 2 1
30016 2 2 2
30016 2 2 3
30016 2 2 4
30016 2 2 5
30016 2 2 6
30016 2 2 7
30016 299999 2
30016 299999 2
30058 0 0 1
30058 1 1 1
30058 1 1 2
30058 1 1 3
30058 1 1 4
30058 1 1 5
30058 1 1 6
30058 1 1 7
30058 1 1 8
30058 1 1 9

```