

**Nuclear Data Section
International Atomic Energy Agency
P.O.Box 100, A-1400 Vienna, Austria**

Date: 1 October 2007
To: S.Dunaeva, O.Schwerer, A.Mengoni
From: V.Zerkin
Subject: Error in ENTRY 11333

Analysis of EXFOR data converted to C4 done by Emmeric DUPONT [emmeric.dupont@cea.fr] under WPEC-SG30 group in his statistical tests trying to help to detect outliers (2007-09-28) contains a reference to the EXFOR entry 11333, sub-entry 002. ENTRY 11333 has following history:

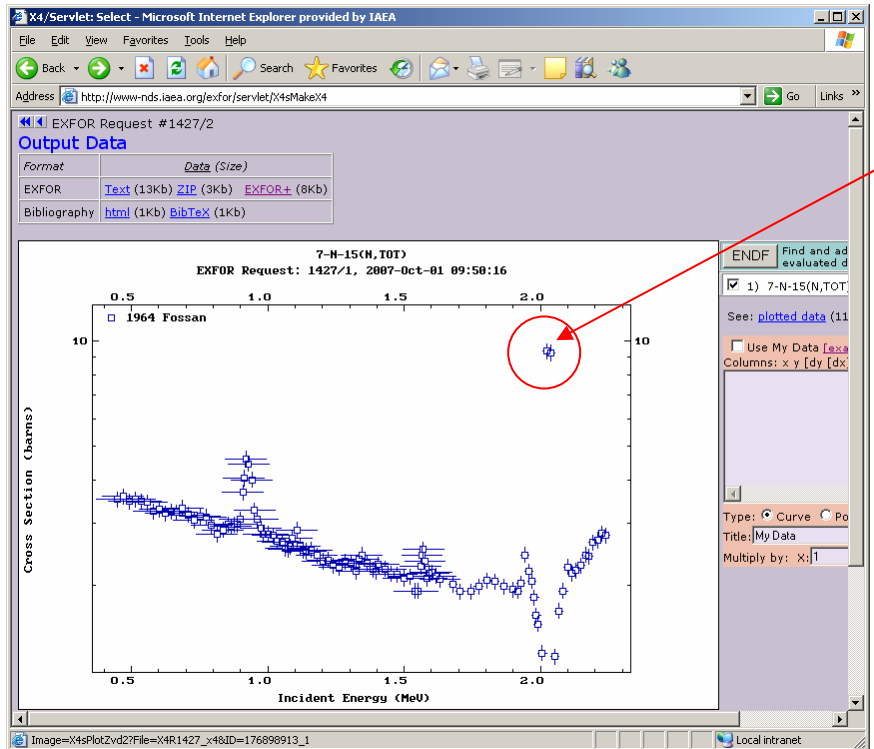
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HISTORY (19760714T) Translated from SCISRS  
(19820324A) Converted to REACTION formalism  
(20050427A) Converted to new date formats, lower case.  
Reference corrected.  
(20061127A) DR Reference corrected to follow APS format
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EXFOR files, imported from VMS system before 2005-04-27, have no errors. Errors (see Fig.1 and Fig.2) appear in the TRANS.1333 and could be result of conversion procedure (probably, done automatically): mantissa was not taken properly in column "DATA" (value "9.40 -01" became "9.4", value "9.30 -01" became "9.3") and in column "EN-RSL" (see attached files in Appendix).

I've tried to find similar cases, because I was afraid this case can be more general (the procedure might be performed more than once and, if it had a bug, similar error could appear in other entries), but I did not find such cases. So, hopefully it is just single mistake. I leave for your decision, whether you wish to discuss this case during NRDC meeting and/or following SG30 meeting.

For discussion on NRDC meeting:

I think NDS should be given rights to correct such (obvious) cases quickly – without any delay – only with short notice to a responsible center.



Two points - outliers

Fig.1 Generated by NDS EXFOR Web-Retrieval system

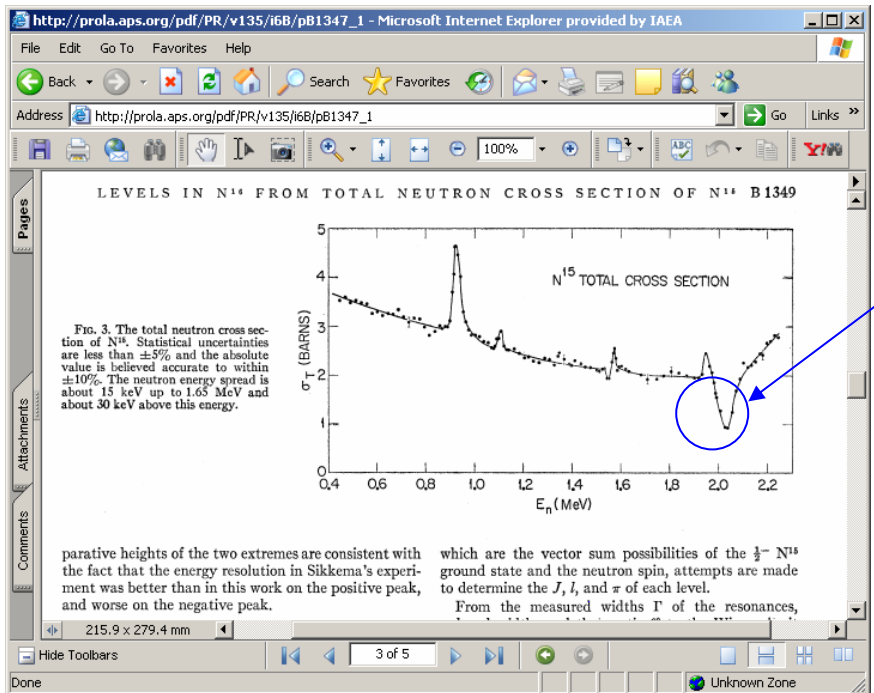


Fig.2 Original article.

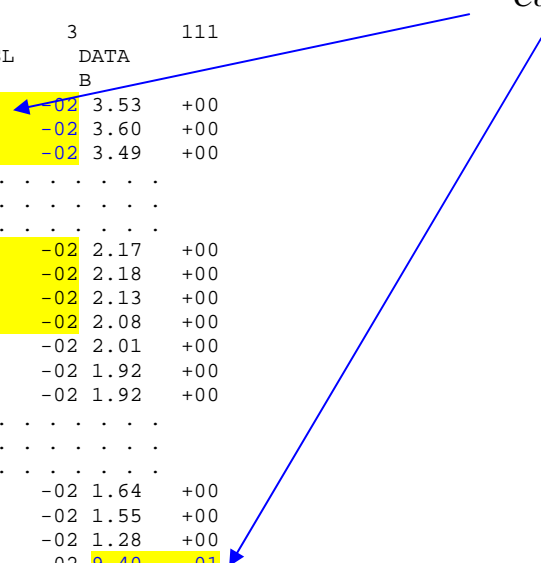
---LB1067.TXT, exported from VMS, 2003.01.08---

ENTRY 11333 820324
 SUBENT 11333001 820324
 BIB 6 8
 INSTITUTE (1USALOK)
 REFERENCE (J,PR/B,135,1347,6409)
 AUTHOR (D.B.FOSSAN,R.A.CHALMERS,L.F.CHASE JR,S.R.SALISBURY)
 TITLE LEVELS IN N15 FROM THE TOTAL NEUTRON CROSS SECTION OF N15.
 STATUS (SCSRs)
 HISTORY (760714T) TRANSLATED FROM SCISRS
 (820324A) CONVERTED TO REACTION FORMALISM
 NOCOMMON 0 0
 SUBENT 11333002 820324
 BIB 2 3
 REACTION (7-N-15(N,TOT),,SIG)
 ERR-ANALYS STATISTICAL UNCERTAINTY LESS THAN 5PERCENT. ABSOLUTE
 VALUE BELIEVED ACCURATE TO WITHIN 10PERCENT.
 COMMON 1 3

DATA-ERR
 PER-CENT
 5.0
 DATA 3 111

EN MEV	EN-RSL MEV	DATA B		
4.50	-01 1.5	-02 3.53	+00	
4.72	-01 1.5	-02 3.60	+00	
4.94	-01 1.5	-02 3.49	+00	
...
1.592	+00 1.5	-02 2.17	+00	
1.603	+00 1.5	-02 2.18	+00	
1.617	+00 1.5	-02 2.13	+00	
1.633	+00 1.5	-02 2.08	+00	
1.682	+00 3.0	-02 2.01	+00	
1.708	+00 3.0	-02 1.92	+00	
1.745	+00 3.0	-02 1.92	+00	
...
1.986	+00 3.0	-02 1.64	+00	
1.991	+00 3.0	-02 1.55	+00	
2.008	+00 3.0	-02 1.28	+00	
2.025	+00 3.0	-02 9.40	-01	
2.038	+00 3.0	-02 9.30	-01	
2.055	+00 3.0	-02 1.25	+00	
2.070	+00 3.0	-02 1.69	+00	
...

Correct



---TRANS.1333 2005.07.08---

ENTRY	11333	20050427	11333	0	1C
SUBENT	11333001	20050427	11333	1	1C
BIB	9	15	11333	1	2
INSTITUTE	(1USALOK)		11333	1	3
REFERENCE	(J,PR,B135,1347,1964)		11333	1	4C
AUTHOR	(D.B.Fossan,R.A.Chalmers,L.F.Chase Jr,S.R.Salisbury)		11333	1	5
TITLE	Levels in N16 from the Total Neutron Cross Section of		11333	1	6
	N15.		11333	1	7
FACILITY	(VDG)		11333	1	8I
INC-SOURCE	(P-LI7) For 0.45 - 1.65 MeV neutrons.		11333	1	9I
	(P-T) For neutrons above 1.65 MeV.		11333	1	10I
SAMPLE	Nitrogen gas in stainless steel cell; 96.7% 15N at		11333	1	11I
	10000 psi.		11333	1	12I
DETECTOR	(SCIN) Stilbene scintillator.		11333	1	13T
HISTORY	(19760714T) Translated from SCISRS		11333	1	14C
	(19820324A) Converted to REACTION formalism		11333	1	15C
	(20050427A) Converted to new date formats, lower case.		11333	1	16I
	Reference corrected.		11333	1	17I
ENDBIB	15	0	11333	1	18
NOCOMMON	0	0	11333	1	19
ENDSUBENT	18	0	11333	199999	
SUBENT	11333002	20050427	11333	2	1C
BIB	4	5	11333	2	2
REACTION	(7-N-15(N,TOT),,SIG)		11333	2	3
ERR-ANALYS	(ERR-S) Statistical uncertainty less than 5%.		11333	2	4C
	Absolute value believed accurate to within 10%.		11333	2	5
STATUS	Tabulated data received from D.Fossan, 1964.		11333	2	6I
HISTORY	(20050427A) Error heading updated.		11333	2	7I
ENDBIB	5	0	11333	2	8
COMMON	1	3	11333	2	9
ERR-S			11333	2	10C
PER-CENT			11333	2	11
5.0			11333	2	12
ENDCOMMON	3	0	11333	2	13
DATA	3	111	11333	2	14
EN	EN-RSL	DATA	11333	2	15
MEV	MEV	B	11333	2	16
4.50	-01 0.15	3.53	11333	2	17
4.72	-01 0.15	3.60	11333	2	18
4.94	-01 0.15	3.49	11333	2	19
5.16	-01 0.15	3.53	11333	2	20
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.....					
.....					
1.592	0.15	2.17	11333	2	92
1.603	0.15	2.18	11333	2	93
1.617	0.15	2.13	11333	2	94
1.633	0.15	2.08	11333	2	95
1.682	0.03	2.01	11333	2	96
1.708	0.03	1.92	11333	2	97
1.745	0.03	1.92	11333	2	98
1.774	0.03	1.99	11333	2	99
.....					
.....					
.....					
1.804	0.03	2.07	11333	2	100
1.835	0.03	2.05	11333	2	101
1.867	0.03	1.99	11333	2	102
1.900	0.03	1.95	11333	2	103
1.917	0.03	1.93	11333	2	104
1.929	0.03	2.03	11333	2	105
1.945	0.03	2.45	11333	2	106
1.960	0.03	2.19	11333	2	107
1.969	0.03	2.06	11333	2	108
1.979	0.03	1.85	11333	2	109
1.986	0.03	1.64	11333	2	110
1.991	0.03	1.55	11333	2	111
2.008	0.03	1.28	11333	2	112
2.025	0.03	9.40	11333	2	113
2.038	0.03	9.30	11333	2	114
2.055	0.03	1.25	11333	2	115
2.070	0.03	1.69	11333	2	116
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.....					
.....					

*Incorrect since
2005-07-08*

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